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AN EXPLORATION INTO FACTORS THAT AFFECT STUDENT
PERCEPTION OF THEIR ONLINE FOREIGN LANGUAGE
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Chun Lai

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AN EXPLORATION INTO FACTORS THAT AFFECT STUDENT PERCEPTION OF
THEIR ONLINE FOREIGN LANGUAGE LEARNING EXPERIENCE

By

Chun Lai

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ABSTRACT

AN EXPLORATION INTO FACTORS THAT AFFECT STUDENT PERCEPTION OF THEIR ONLINE FOREIGN LANGUAGE LEARNING EXPERIENCE

By

Chun Lai

Distance foreign language learning has been growing at a fast speed with the ever-increasing demand on the foreign language education and the paucity of foreign language teachers. A course design framework is much needed to promote and safeguard the quality of distance foreign language education. An optimal distance foreign language design framework could borrow from research findings from decades of distance education research and second language education research, and a test of such framework could not only identify crucial factors to effective distance foreign language learning but also help test the applicability and utility of those guidelines in those research areas. This study constructed an online foreign language course design framework, tested this framework through building a distance Chinese course and together with several existent distance foreign language courses. Students and instructors from several distance foreign language courses at a virtual high school in the spring semester of an academic year. Data were collected through surveys, classroom observations, interviews, and class participation and artifacts analyses. It was found that the course communication component of the design framework, interaction with the instructor and with classmates in particular, was a major component that influenced students' perception of their online foreign language learning experience. Some student and contextual factors like students' attitude and confidence in distance foreign language learning were also found to have influence on students' satisfaction with their course. In addition, this study

pointed out some issues and problems related to the implementation of the designed framework.

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CHAPTER 1

RESEARCH PROBLEM AND INTRODUCTION

Statement of the Problem

Nationwide there is great increase in demand for foreign language education as more and more people realize the need for internationalization and the importance of building global citizenship. National statistics shows that from 1982 to 2000, enrollment in advanced foreign language classes has increased and the percentage of students who had not completed any foreign language study has decreased (NCES, 2003). A national survey of elementary and secondary schools has shown that there has been a significant increase in the number of elementary schools offering foreign language programs (jumping from 22% in 1987 to 31% in 1997) (CAL, 1997). Nationwide there is a great amount of effort to enhance the foreign language skills of American students, ranging from the \$114 million budget plan to boost foreign language education in the 2007 fiscal year announced by President Bush to the increased amount of states (more than 19 states) making foreign language a state graduation requirement for at least some students. With new national, state and local standards calling for all students everywhere to have the opportunity to become proficient in a foreign language, the shortage of resources and qualified foreign language teachers is becoming an ever-increasing concern and a big hurdle. In NCSSFL's words (2003), "Foreign language education cannot afford to look solely to conventional solutions to overcome the shortage of resources and qualified teachers to realize its goals. The foreign language profession must look to technology as one possible avenue for meeting the goals set forth in the national standards". Distance foreign language learning has been elected a viable solution to this problem, and has been

continuing to increase at an exponential pace with this ever-increasing demand for foreign language education.

With more and more students taking distance foreign language courses, the quality of distance foreign language education is crucial to the overall quality of foreign language education. Furthermore, the concern for course quality is also found to be one of the major reasons that keep schools from offering or expanding distance courses (NCES, 2003; 2005).

Currently the majority of distance foreign language courses are carried out in the following way: pre-built courseware, either designed specifically for distance learning or simply adapted from existent language learning CDs, is hosted on some sort of course delivery systems like WebCT, Blackboard or Angel, and then teachers, who are either currently teaching the foreign language in K-12 setting or had similar teaching experience before, are recruited to “teach” (to be exact, to provide email feedback to the assignments and grade the students) the distance course with some technical help from the institution. However, since most of the existent language learning CDs are not originally designed with distance learning in mind, the fitness of existent language learning CDs to distance learning situation is questionable. The poor and simple bridge the instructors provide between the courseware and the students becomes a great concern to the overall effectiveness of those distance foreign language courses. To promote distance foreign language teaching and to safeguard the quality of such foreign language learning environments, empirically-based guidelines and principles for designing optimal/quality distance foreign language learning environments should be readily available, the usability and utility of which should be systematically tested. Thus, a distance foreign language learning design framework is much needed, but at the same time also theoretically ready

since a large volume of literature has been accumulated through decades of research in both distance education and in second and foreign language education. A design framework that integrates the research findings from both fields could yield valuable suggestions for the design of distance foreign language learning environments.

Introduction to the Study

This study attempted to construct and test a distance foreign language course design framework drawn out of current distance education literature and second language education literature, and to identify some crucial factors to effective distance foreign language teaching and learning.

A series of narrative reviews and meta-analyses of distance education literature have identified some crucial factors to guide the design of distance learning environments in general, which can be applied to distance foreign language teaching and learning (Allen et al., 2002; Bernard et al., 2004; Berge & Mrozowski, 2001; Cavanaugh, 2001; Jung & Rha, 2000; Saba, 2000; Shachar & Newmann, 2003; Ungenleider & Burns, 2003; Zhao, Lei, Yan, Tan & Lai, 2005). However, the guidelines are scattered and need to be synthesized into a framework for distance learning environment design¹. At the same time second language education literature has yielded a lot of guiding principles for second language education, which could also be used to guide distance foreign language education. However, those principles have been mainly tested in the traditional instructional situation and their utility in distance foreign language education has seldom been investigated.

¹ Here, distance learning environment was used in a narrow sense, referring only to the design of mediated learning materials and activities as well as course management and class interaction. Issues like faculty support and institutional support were not included in the framework

Thus, although distance education literature has rich suggestions on the teaching and learning issues in distance education, and second language education literature has abundant guidelines on foreign language education, the applicability of those principles has not been fully explored in the distance foreign language environment, and a systematic framework on individual distance foreign language course design is not in place. This study intended to construct a framework of distance foreign language course design through integrating the suggestions from both distance education and second language education. More importantly, this study planned to test this framework through designing a distance foreign language course and examining whether and how each design principle got realized or failed to materialize. Furthermore, this study also elicited the opinions of students from a series of distance foreign language courses on their perception of their online language learning experience and the factors that they regarded as important to their online foreign language learning. By thus doing, this study was expected to test the applicability and utility of the synthesized framework so as to enrich our understanding on how to construct optimal distance foreign language learning environments.

Significance of the Study

Through constructing and testing a design framework, and thus identifying crucial factors to distance foreign language learning, this study can help to guide us to make informed decisions on the design of optimal distance foreign language learning experience. Furthermore, this study also holds several theoretical contributions to distance foreign language education. First, this study can inform distance foreign language literature, where theoretical argumentations and analysis of individual technologies abound while empirical tests of how different components and technologies work

together to construct an optimal learning environment is absent and much needed. Second, this study could also test and push the further refinement of current distance education theories and the application of current second language learning theories in the distance learning context. Third, this study can also inform distance education at the K-12 level, where the dearth of research calls for more systematic examination into this ever-increasing distance learning population (Ungerleider & Burns, 2003; Canavaugh et al., 2004).

CHAPTER 2

LITERATURE REVIEW AND RESEARCH QUESTIONS

Any distance course design, the design of distance foreign language courses without exception, includes issues that revolve around two major components: the course communication component and the course structure component. The course communication component includes issues about class interaction and communication mechanism that helps to reduce class confusion and frustration commonly reported among the distance learners. The course structure component encompasses issues concerning the design and organization of the learning materials and activities (refer to Appendix A for course design principles in several influential distance education frameworks). This chapter will integrate research suggestions from both distance education and second/foreign language education to construct a design framework with design principles on the issues around these two course components.

Course Communication

Course communication component includes both the design of opportunities for interaction and the design of mechanism that facilitates effective communication within the course, such as the clarity of learning activities and assignment instructions, the feedback mechanism and the availability of learning support that helps to reduce confusion and frustration in online learning.

Interaction

Language is both the means and the ends of interaction, the dual role reinforcing each other and making interaction the core of foreign language learning. The potential of interaction in enhancing social presence and the sense of community also makes it critical to distance foreign language learning.

In language learning, interaction is valued not only as a “medium of practice” to reinforce what has been learned previously, but also “the means by which learning takes place” (Gass, 1997, p. 104). The association between interaction and learning is conceptualized and expounded in two major perspectives to second language learning: Interactionist perspective and Sociocultural perspective. Interaction provides the opportunities for instances of miscommunication that trigger conversational negotiation either of meaning and of form, a process that Interactionist perspective holds to be beneficial to second language learning. According to this perspective, this type of interaction connects all the necessary conditions for successful language learning: quality input, quality feedback, opportunities for practices and respect for learner syllabus (Egbert & Hanson-Smith, 1999, Zhao, 2003). Empirical studies that test the association between interaction and second language development (Gass & Varonis, 1994; Mackey, 1999) have led us to the point where we can safely conclude that negotiated interaction is facilitative of second language learning (Gass, 1997). Sociocultural perspective also emphasizes the role of interaction in mediating language learning, since language is one primary semiotic tool that human uses to mediate their cognitive processes, including language acquisition (Lantolf, 1994). According to van Lier (1996), learning and using a language is both an intrapersonal process and an interpersonal (social and interactive) process. Language learning is a mental activity that is carried out in the joint activity between experts and novices, with the former assisting the latter, using language as a major mediating tool. Therefore, it is right in conversational interactions that learners internalize/appropriate the second language, both the linguistic features and the appropriate use of the language in various social contexts.

Furthermore, the pivotal position of interaction in distance education has been firmly established both in theoretical conceptualizations (Holmberg, 1989; Moore, 1993; Garrison, 1989) and via meta-analyses of studies on the effectiveness of distance education (Bernard, Abrami, Lou, Borokhovski, et al., 2004; Zhao, Lei, Yan, Tan & Lai, 2005). As Bernard and his colleagues (2004) pointed out, “instructionally relevant contact with instructors and peers is not only desirable, it is probably necessary for creating learning environments that lead to desirable achievement gains and general satisfaction with DE” (p. 38). In addition to stressing the importance of instructional interaction, distance educators also argued for the importance of social aspect of interaction in terms of social presence and sense of belonging (Byers, 2000; Mayes, 2004; Wegerif, 1998). In Muilenburg and Berge’s (2005) large-scale factor analysis on barriers to online learning, perceived lack of social interactions was found to be the most severe barrier to distance learning as perceived by all types of learners regardless of their previous experience with distance learning. Tinto (2002) stressed that both academic and social experiences are important to student learning, and that promoting connected academic and social experiences is an important consideration when constructing learning environment to promote student learning. Distance foreign language learning parallels the general trend in distance education, a shift from supporting independent learning to supporting interconnected learning, and is now putting even greater emphasis on interaction due to the consideration of the crucial role of interaction in language learning. White (2003) pointed out: “A central issue in distance language learning is how to maintain sufficient learner contact and ongoing interaction” (p. 55).

Amount of interaction. Due to the crucial role of interaction in language learning, language educators are advocating the provision of large amount of interaction within the

language learning environment. As a matter of fact, the current orthodoxy in language pedagogy, task-based instruction, promotes extensive use of interactive tasks as basic components of language curriculum (Nunan, 2004; Ellis, 2003). Language educators not only called for large amount of interaction opportunities but also stressed the importance of abundant opportunities to interact with various interlocutors (with the instructor, with other native speakers and with peers) in the language learning environment since different interlocutors may provide different types of opportunities and conditions for language learning (Mackey, Oliver & Leeman, 2003; Oxford, 1997; Tudini, 2003) and are also needed to meet the variety of needs for interaction in distance learning (Bernard et al., 2004; Cummings, Bonk & Jacobs, 2002). Furthermore, diversified interaction formats – dyadic interaction, small group interaction and whole class discussions – also provide a variety of social configurations for learning and using the target language (Kramsch, 1987; Doughty & Pica, 1986). There should be opportunities for both written and oral modes of interaction since these two modes of interaction target different language skills (reading and writing skills vs. speaking and listening skills), provide language input of different nature with different complexity, and impose varying demands on the complexity, accuracy and fluency of language production. As for what language to use during interaction, it depends on the proficiency level of the learners. The use of first language (L1) in second language learning should be recognized (Antón & Dicamilla, 1999), but at the same time there should be a gradual progression towards a second language-only (L2) learning environment.

Quality of interaction. Distance educators have come to the consensus that merely having interaction is not enough and what's more critical is the quality of the interaction (Bernard et al., 2004; Garrison, Anderson & Archer, 2001; Pawan, Paulus, Yalcin &

Chang, 2003). Garrison and Cleveland-Innes (2005) stressed the importance of the confluence of “cognitive, social and teaching presence” and using teaching presence to transit social presence to cognitive presence in distance learning environment. In language education, this cognitive presence could be specified as negotiation of meaning and enhanced cultural understanding.

As have been elaborated previously, not all interaction is facilitative of second language learning, but rather those that trigger negotiation of meaning, function and form are held to be beneficial to language learning. Negotiation of meaning is the interactional efforts in which learners use negotiate devices like clarification request, confirmation check, recasts, etc. to reach mutual understanding when they encounter difficulty in communicating or comprehending in the target language. This type of negotiated interaction is believed to be facilitative of second language learning because:

Negotiation of meaning, and especially negotiation work that triggers interactional adjustments by the NS or more competent interlocutor, facilitates acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways. (Long, 1996, p. 451)

Pica, Kanagy and Falodun (1993) found that communicative tasks, in which both interlocutors hold a different portion of the information and are required to request and supply the information to each other so as to achieve the common goal of reaching the only one acceptable task outcome, were more likely to elicit negotiated interaction.

Robinson (2006) further pointed out that tasks with different levels of complexity in different dimensions (Here/Now vs. There/Then and Resource-directing vs. Resource-dispersing) would elicit language production with varying level of accuracy, complexity and fluency, and trigger different levels of attention to form. A combination of tasks with

varying complexity and sequenced in accordance with incremental complexity would be needed to facilitate interaction with appropriate level of negotiation of meaning.

Another dimension of quality interaction would be interaction opportunities that were created not only out of the consideration of language itself but also out of the consideration of enhanced culture understanding, both in terms of little “c” (i.e., patterns of behaviors as to “what to do, where and when”) and in terms of big “C” (i.e., tangible and intangible cultural products like music, education system, etc.) (Herron, Cole, Corrie & Dubreil, 2000), since language learning and culture learning are intimately intertwined and indispensable to each other (Curtis, 1999; Lange, 1999; Herron et al., 2000).

Thus interaction in an online foreign language class should provide opportunities for social interaction, both online and offline, formal and informal, to enhance social presence and sense of belonging (Bielman, Putney & Strudler, 2003), and at the same time should be arranged, facilitated and guided towards more negotiation of meaning and cultural understanding both through the task design and the active role the instructor plays in the learning environment.

Interaction media. In distance courses, interaction is mediated through media, and what media are used for what purposes plays an important role to the overall quality of the course. Distance educators have been advocating media diversity in online learning environment (Zhao et al., 2005; Gunawardena & McIssac, 2004). In an online foreign language environment media diversity might be even more important, since different media might foster the development different language skills (Zhao, Albarez-Torres, Smith & Tan, 2004). The synchronous chatting might be best used mainly for pedagogical tasks due to the time constraints in distance learning and the cost it would incur, and the asynchronous discussion forum might fare better to be mainly used as

preparation for pedagogical tasks and for community building. Both asynchronous and synchronous interaction media should be used since synchronous interaction alone would not be enough to meet all the language learning and social needs in an online foreign language learning environment. Even within synchronous interaction, both written and oral formats should be used to capitalize on the reflective function and the enhanced attention to form in tasks conducted in the written format like text-based online chatting (Hawkes, 2001; Lai & Zhao, in press; Reynard, 2003) and to meet the needs for the development of oral proficiency in foreign language learning and for enhanced social presence (Wang, 2004).

Communication Mechanism

An effective communication mechanism is of great importance not only in facilitating learning, but also in reducing online learners' confusion, frustration and anxiety. The nature of distance education makes clear and timely communication extremely important for distance courses, since "[s]tudents reported confusion, anxiety, and frustration due to the perceived lack of prompt or clear feedback from the instructor, and from ambiguous instructions on the course website and in e-mail messages from the instructor" (Hara & Kling, 2001, p. 68). According to them, the primary communication medium of distance education, written text, 'amplified' the difficulty of resolving the inherent ambiguity of human communication, and any means to reducing this ambiguity and alleviating the confusion and frustration caused by the ambiguity is key to promoting greater satisfaction with the distance course and reducing attrition rate. Thus, when designing an online foreign language course, it is crucial that the class objectives and expectations be communicated explicitly and clearly, and the rationales for the expectations be provided so that the learners would have a clear sense of where they are

going and what they are doing and why, and thus can constantly monitor their learning progress. Furthermore, timely technical support from either the instructor or other learners or the institution should be readily available and a mentoring system should be set up to provide emotional and learning support and reduce confusion and frustration (Hara & Kling, 2001).

Distance courses should also provide immediate and constructive feedback. Thurmond et al. (2002) identified “timely comments (p. 186)” as one of the important environmental factors that are highly predictive of student satisfaction of a web-based course. The value of negative feedback has been firmly established in foreign language learning (White, 1989; Doughty & Williams, 1998; Long, 2004). Doughty and Long (2003) argue that implicit negative feedback, like recast, would be an ideal form of feedback to provide during computer-mediated communication. Abundant access to immediate negative feedback in the form of negotiation of meaning, recast and meta-linguistic feedback, both from the instructor and from other peers should be made available. Feedback on the assignment should be uploaded in a timely fashion. Peer feedback should be recruited as a valuable venue for feedback in online learning environment (Sawatpanti, Suthers & Fleming, 2004), and could be encouraged through creating opportunities for peer writing review and collaborative work.

Course Structure

In Moore and Kearsley’s (2005) transactional distance theory of distance education, structure is one of the three major dimensions in distance learning. Structure encompasses elements like information presentation, learning activities and projects, and assessments. Current take on course structure design is to take a learner-centered approach (Strambi & Bovet, 2003).

Task-Based Instruction

Doughty and Long (2003) proposed task-based language teaching as “a psycholinguistically optimal” distance foreign language learning environment. They argued that task-based language teaching is by nature a learner-centered approach, with learning materials and activities focusing on supporting learners to execute their individual learning trajectories within the domain of the target language. Thus, task-based language teaching and learning should be a viable direction to approach. But at the same time, there is this issue of how to select and sequence the tasks. Doughty and Long suggested that there should be an overarching “target task” and some “pedagogical tasks”, with the former stringing the latter together. Furthermore, the pedagogical tasks themselves should not be discrete but rather be a coherent interrelated whole (Zhao, 2005, personal communication, November, 24), which according to Tinto (2002), is crucial in promoting student involvement and engagement in their educational experience. The sequencing of the tasks is an issue that is currently under investigation. Nunan (2004) proposed arranging the tasks in terms of units or themes and within each theme sequencing them in the sequence of listening, speaking, reading and writing. Robinson (2006) proposed sequencing the tasks in reference to the increment of the performance and developmental complexity of tasks.

Focus on Form

Doughty and Long (2003) advocated for the use of focus on form in online foreign language learning environment. According to them, focus on form, defined as “during an (otherwise) meaning-focused lesson, and using a variety of pedagogic procedures, learners’ attention is briefly shifted to linguistic code features, in context, to induce ‘noticing’, when students experience problems as they work on communicative tasks” (p.

64), is a viable option to mitigate the limitations of the lax focus on meaning that leads to deficient productive skills especially in grammatical competence and the limitations of traditional rigid focus on forms whose primary focus is to learn and engage in intensive practice of pre-selected language structures, which may or may not be contextualized (Ellis, 2001). In addition, Doughty and William (1998) provided a list of focus-on-form techniques: input flooding, input elaboration, input enhancement, corrective feedback on error and input processing. Research has suggested focus-on-form might be facilitative of the acquisition of certain linguistic structures (Ellis, 2002; Doughty, 2003; Norris & Ortega, 2000; Spada, 1997). Thus an online foreign language learning environment based on learner syllabus would base the linguistic instruction on the problems and needs raised by the learners and those emerged during their pedagogical task performance rather than a set of pre-planned prescriptive linguistic items (Reynard, 2003). Emergent and learner-based linguistic instruction could also be achieved through guiding learners discuss lists of various examples of problematic language items emerged during their pedagogical task performance.

Variability of Assignments and Assessments

Course structure should match with various learning needs and styles through adding flexibility and variability into course structure design. Moore (1993) emphasized that it is important that the design of the course structure should match learners' desire for structure. Stein et al. (2005) concurred with his point and suggested that certain degree of flexibility should be introduced into the structure design, and "class activities, assignments, instructor guidance, and the opportunities for interaction built into the course should be considered fluid at the beginning of a course rather than fixed" (p. 115). Variability in course structure design means that the course should allow for various types

of learning activities, assignments and assessments in various formats (e.g., individual or group work) mediated by various means (Sawatpanit et al., 2004). Different types of pedagogical tasks will add variability in learning activity. Various types of assessments, in the form of quiz, class projects, audio files, and so no, could also be helpful. Furthermore, giving students the choices over the types of assignments and the ways to approach the assignments could also add to the flexibility of the course structure.

Learner Self-Management Skills

Activities that help learners to develop the ability to select appropriate distance learning strategies and manage their own learning should be an indispensable component of the course. According to Bernard et al. (2004), lack of self-management and independent learning skills is one of the factors that contribute to high attrition in distance education. Curtis et al. (1999) asserted that distance educators should try to give learners the confidence and learning strategies to help them continue learning beyond the end of the course. Hurd et al. (2001) pointed out that whether learners can persist and keep energy in rough times of distance learning depends largely on the learners' ability to "make the most of that support in terms of developing as a learners" (p. 342). Lamy and Goodfellow (1999) argued that in the case where learners have little chance to interact with other target language learners, learner autonomy could be promoted through reflection on one's own learning strategies. Kotter (2003) and Little (2001) further suggested that language learning autonomy could be facilitated through interaction and collaboration, i.e., independence develops out of interdependence. Thus, in an online foreign language environment, opportunities should be given to the students to consciously reflect on their language learning process, their experimentation with learning strategies, self-assessment of what they have learned and what they need to

improve, and share what they have learned with each other. Furthermore, learners should also be given the opportunities to share their strategies and frustration with each other and help each other to better adjust their learning strategies. It would also be helpful if instructors can introduce specific and contextualized learning strategies as opportunities emerge during class discussion.

Constant Formative Assessments

Formative assessment of learner performance can give learners a sense of how they are doing and thus give them a better chance to gain control over their learning. Formative assessment can also help instructors to adjust their course structure to better fit students' learning needs. Egbert and Thomas (2001) have stressed that the process of instructional design must be "inherently iterative and evaluative in nature" (p. 404) to accommodate the changing needs of the learners.

Co-construction of Learning Experience

Activities that invite learners to co-construct their online learning environment and experience are also important to online foreign language learning. Encouraging learners to co-construct their learning resources and experience can not only alleviate the sense of isolation but also provide the support much needed by the learner during distance learning (McPherson & Nunes, 2004). Felix (2003) suggested giving learners the opportunity to contribute to their learning resources and social environment and the opportunity to engage learners in collaborative work in experiential and constructivist projects as suggested by a growing body of successful examples in the distance education literature. Inviting learners to co-construct their learning experience not only respects learners' existing knowledge and but also gives them a sense of "their presence as having significance in the learning environment" (p. 6), which according to Reynard (2003)

should be an important aspect of course design. When designing an online foreign language learning environment, we should give learners the chances to share information related to the target language, the culture and the target task, and encourage them to help and support each other during the learning process. Moreover, opportunities to share learning difficulties and frustrations and to offer strategies and solutions to each other would also help (Strambi & Bovet, 2003).

The proposed design principles for effective distance foreign language courses are summarized in table 1.

Table 1

Design Principles for Distance Foreign Language Environments

Components	Principles
Course communication	<p>Provide lots of opportunities for various forms of interaction with different interlocutors in both written and oral modes.</p> <p>Facilitate high quality interaction with lots of chance for negotiation of meaning and cultural understanding.</p> <p>Provide clear instructions, course expectations and technical support.</p> <p>Provide quality feedback in a timely manner and encourage peer feedback.</p> <p>Mediate interaction through various communication media and different media will be used for different interaction purpose.</p>
Course structure	<p>Apply task-based instruction to foster a learner-centered learning environment, and the tasks themselves should be interrelated and coherent.</p> <p>Strive for focus on form and emergent and learner-based linguistic “instruction”.</p> <p>Vary the course structure to cater to various learning needs and styles.</p> <p>Incorporate activities that help learners to strengthen their ability to manage their own learning.</p> <p>Conduct constant formative assessment to construct individualized learning support.</p> <p>Encourage learners to co-construct class resources and their learning environment.</p>

Research Questions

This study intends to test the proposed framework through designing an online Chinese course and to examine the critical factors in quality distance foreign language learning. In specific, the following research questions will be addressed:

- 1) How well will the proposed design framework be materialized in an online Chinese course?
- 2) What factors affect student perception of their online foreign language learning experience?
- 3) What are students' perceptions of the different course components of the online Chinese course?

CHAPTER 3

METHODOLOGY

This chapter explains the participants, instruments and data collection, and data analyses for this research.

Participants

Students who were taking foreign language courses from a state virtual high school were recruited for this study. The foreign language course enrollments of 2006 spring semester in this virtual high school were 283 students by the time of announcing the study and sending out study permission. The languages offered were French, German, Spanish and Chinese. French, German and Spanish had four levels of courses ranging from basic level to intermediate level, whereas the Chinese course was a basic-level pilot course. It turned out that 147 students filled out the first survey at the beginning of the semester and 93 students filled out the second survey at the end of the semester, among which 79 students filled out both surveys² and 14 students were “interviewed” via follow-up email open-ended questions. Seven instructors were surveyed and interviewed.

The students in the Chinese class were also given an end-of-semester course survey to elicit their satisfaction with and perception of different components of this Chinese course, and 19 out of 22 students filled out this end-of-semester course survey.

² The small response rate might threaten the representativeness of the sample, and there was no hard evidence to show that the sample was representative of the potential pool of students in those online foreign language courses. That being said, the participants in this study did represent a wide range of demographic background, and distance and foreign language learning backgrounds. The percentage of participants in different language groups virtually paralleled the distribution of the potential student pool (Appendix B), which suggested that the participants were representative of the student pool as far as language group was concerned. The distributions of the final scores of participants in different language groups resembled those of the final scores of all the students in those different language groups (Appendix C). Moreover, student characteristics, learning background and demographic data were compared between the participants and the 147 students who filled out the first survey, and it was found that the 79 participants represented the 147 students quite well (Appendix D), which suggested that the 79 participants could at least represent more than 50% of the potential pool.

Instruments and Data Collection

Data were collected over one semester from three sources: surveys, follow-up emails and class artifacts in the Blackboard³.

Surveys

Surveys were administered to both students and teachers. Students were surveyed at the beginning of the semester⁴ and again at the end of the semester⁵. The two surveys were both administered online through Survey Monkey⁶. The instructors were surveyed in the middle of the semester.

Student survey. The beginning-of-the-semester survey included the following constructs: 1) Demographic data, such as grade, gender, age, native language. 2) Student traits⁷, such as organization and self-regulation skills. 3) Student foreign language and distance learning background, including number of foreign language courses and distance courses completed before and their rating of their previous learning experience. 4) Student general achievement motivation, and reason and motivation for taking the course. 5) Student attitudes towards distance foreign language courses and confidence in their ability to take distance foreign language courses. 6) Social resources (in terms of friends

³ All the foreign language courses in this virtual high school were delivered through Blackboard.

⁴ Due to the fact that those courses allow three-week span for students to register and drop, the first survey was actually announced at the fourth week of the semester. Since the surveys were administered online, students did not fill out the survey at the same time. However, the majority of the first surveys were collected within four to six weeks.

⁵ Considering that a time span was needed for students to fill out the online surveys, the second survey were made available six weeks before the course's official ending date. And it turned out that the majority of the students filled out the survey two weeks before the end of their course.

⁶ Survey Monkey is an online survey engine which hosts customized survey questions and collects and store survey responses. It also provides a summary report of the responses and allows export into excel files. Administering online surveys made it hard to enforce the students to fill out the survey at a specific date, and as a result for the majority of the students, the two surveyed were filled out with less than two-month time lapse in between. However, since the two surveys did not have much constructs in common and the first survey targeted at student traits and contextual factors that were relatively stable and were generally not expected to change over one or two months.

⁷ The items in this part were taken from the ESPRI survey developed and tested by Roblyer & Marshall (2003).

and family members) available to the students to support their learning of the foreign language. 7) Student time constraints in terms of the time they spent on part-time job, sports and other social activities. Questions in the survey were mostly Likert scale questions using a scale of 1-7 with 1 indicating “strongly disagree” and 7 indicating “strongly agree”.

The end-of-the-semester survey included the following constructs: 1) Student satisfaction with the course, including their overall satisfaction with and enjoyment of the course, their satisfaction with specific aspects of the course like amount of interaction with classmates and the instructor, the organization of the course, etc., and their intention of taking the next level of the distance foreign language course and of continuing to learn the language through other means. 2) Student attitude change in terms of their perception of the effectiveness of distance foreign language learning and their confidence in taking distance foreign language courses. 3) Student perception of improved skills through taking this distance course, such as understanding of the language and the culture, online learning skills and online foreign language learning skills. 4) Student evaluation of the effectiveness of the course in teaching language and culture. 5) Student perception of certain aspects of the course design, such as amount of interaction, clarity of the instructions, feedback from the instructors, opportunities for collaborative work and so on. 6) Students perception of crucial factors to distance foreign language learning. 7) Student comments on the areas that their courses needed improvement. 8) Student actual behavior in the learning process, such as social resources used (frequency of studying together with other classmates and practicing with family members and friends on the language), frequency of emailing the instructor, time spent on study the course each week, and so on.

Questions were again mostly Likert Scale from 1-7 with 1 indicating “strongly disagree” and 7 indicating “strongly agree”.

The course evaluation survey specifically for the Chinese course elicits students’ overall satisfaction with the course, perceptions on the various components of this course, and things they want to improve for this course.

Instructor survey. The instructor survey was administered mainly for the reason to get a better understanding of how each of the instructors delivered the courses. Instructors were asked on issues related to the manner they handled interaction with the students, the way they gave feedback, group activities or collaborative work they organized and so on. Furthermore, the instructors were also asked on their perception of the crucial factors to distance foreign language learning. Most of the questions were again Likert Scale from 1-7 with 1 indicating “strongly disagree” and 7 indicating “strongly agree”.

Student Follow-up Email Questions and Instructor Phone Interviews

Mid-of-semester “interviews” were conducted on 14 students and seven instructors. Student “interviews” were conducted through follow-up email correspondences on a set of open-ended questions. The students were selected to represent a wide range of previous distance learning and foreign language learning experience based on their first survey responses. Students were “interviewed” on their perception of the strength and weakness of their courses, of the factors that they regarded as critical to effective distance foreign language learning and the reasoning behind them, and of an ideal distance foreign language course in their mind (see Appendix E). Around 40 students were contacted via email to check whether they would be interested in answering some questions about their learning experience in their online foreign language class, and 14 students gave consent, thus there was a 35% response rate for “interview”.

Among the 14 students, seven were from the online Chinese course and the rest seven were from the other courses. Based on their responses to those open-ended questions, five students were emailed back for clarification on their responses. Telephone interviews with the instructors were conducted after they filled out the instructor survey, and the interviews were basically for the purpose of clarifying some of the responses in the survey. In addition, they were also asked on their vision of an ideal distance foreign language course. All participants were interviewed individually. The email interviews with the students were saved and the telephone interviews with the instructors were audio-recorded.

Class Artifacts in the Blackboard

For all the distance foreign language courses, the course materials and activities were organized in the Blackboard. The grades of each activity and the overall scores were recorded in the Gradebook in the Blackboard. Furthermore, for the Chinese course⁸, all the postings on the discussion board forums were saved in the Blackboard. All the grade information and discussion board entries were retrieved at the end of the semester.

Data collection started at the end of February and ended at the beginning of June. Table 2 presents the procedure and timeline of data collection.

⁸ The other foreign language courses did not use Blackboard forums embedded in Blackboard, and there were no entries in this area. Thus only the discussion board entries in the Chinese course were saved and retained for analysis.

Table 2

Timeline for Data Collection

Date	Week	Data Collection
Feb. 20 th	4 th week	Send out the announcement and open the first survey.
Mar. 20 th	8 th week	Send out instructor survey.
Mar. 20 th	8 th week	Email student “interview” invitation.
Mar. 28 th	9 th week	All but a few students finished the first survey.
Apr. 10 th	11 th week	Phone interview with the instructors.
Apr. 10 th – 17 th	11 th – 12 th week	The majority returned the “interview” questions.
Apr. 17 th	13 th week	Open the second survey.
May 17 th	17 th week	All finished the second survey.
May 21 st	18 th week	Collect the course artifacts and class survey responses from the Chinese course.

Data Analysis

Data Cleaning

Only the students who filled out both surveys were included in data analysis. And heritage language learners were excluded based on their native language backgrounds. Altogether 79 students were retained for the analysis, 57 (72%) females and 22 (28%) males; 8 (10%) students were 9th graders, 23 (29%) were 10th graders, 21 (27%) were 11th graders, and 27 (34%) were 12th graders. The students’ age ranged from 14 – 18, with the average being 16.

Reliability Check

Research designed scales were checked for reliability. The outcome scales were all around 0.90, and the predictor scales were mostly above 0.60.

Table 3

Reliability Check for Research Designed Scales

Scale	Factor	α	n
Outcome	Satisfaction	0.90	11
	Attitude change	0.93	5
	Perceived improved skills	0.95	10
	Evaluation of effectiveness	0.87	2
Student Variables	Attitude	0.70	5
	Confidence	0.84	3
	Achievement motivation	0.55	4
	Organization and self-regulation skills	0.64	5
Contextual Variables	Social resources and support	0.58	4
Course Variables	Course communication	0.87	10

Data Integrating

Final predictors and outcome variables. Based on the study design and through factor analyses, the outcome scales were reduced to two variables: positive perception of the course⁹ and reduced feeling of isolation. The predictor data were reduced to the following variables: 1) course variable: course communication¹⁰; 2) student variables: organization and self-regulation skills, achievement motivation, motivation for taking the course, positive attitudes towards distance foreign language learning, confidence in taking distance foreign language courses, gender, grade; 3) contextual variables: perceived social resource availability, social resources used, after-school activity, online learning background, language learning background, level, frequency of emailing the instructor, and hours of study per week (see Appendix F for detailed information).

⁹ This outcome variable was a composite score of students' overall satisfaction with the course and with various components of the course, students' positive attitude change towards distance foreign language learning and distance learning, students' perceived language learning and online learning skill improvements, and students' evaluation of the effectiveness of the course.

¹⁰ Course communication was a composite score of both the opportunities for interacting with the instructor and other classmates, and the effective communication mechanism (timely and informative feedback; clear instructions; and technical and mentor support). The reason for this was that the communication mechanism indicators were highly correlated with the opportunities for interacting with the instructor and other classmates, and could not be used as separate predictors. And also it made sense to combine them theoretically since they are all about ways of ensuring that the communication in the whole learning process is clear and smooth.

Table 4

*Reliability Check for Variables after Data Integration*¹¹

Scale	Factor	α	# of items
Outcome	Positive perception of the course	0.98	25
	Reduced feeling of isolation	0.76	2
Course Variables	Course communication	0.87	10
Student Variables	Attitude	0.74	4
	Confidence	0.84	3
	Achievement motivation	0.59	3
	Organization and self-regulation skills	0.64	5
Contextual Variables	Social resources possible	0.67	2

Data Analyzing

The designing process of the online Chinese course and students' use of and reactions to different components of this course as revealed in the end-of-semester course survey and their discussion board entries were recorded to answer the first research question, i.e., how well the design was materialized in the context of a virtual high school.

Linear Regression Analyses on the survey responses from participants in different foreign language courses were conducted to identify crucial factors that may predict students' perception of their online language learning experience and feeling of isolation during the learning process. Correlation analyses were also conducted on the online Chinese course.

Qualitative analyses on student rating on the importance of a variety of factors to their online language learning experience, their interview data and selected survey responses were conducted to provide further look into factors that were perceived to be important. Furthermore, analysis of students' perception of the various components of the

¹¹ The new α for achievement motivation and social resources possible were calculated after throwing away a few variables in the construct.

online Chinese courses was conducted to add further insight into the implementation of the design framework at beginning-level foreign language courses.

CHAPTER 4

WHEN THE IDEAL MET THE REALITY

The proposed design framework stands for the theory-suggested ideal version of what an optimal language learning environment should look like. When it was implemented in real contexts, a lot of contextual variables played a role in shaping the final materialization of the design framework. This chapter records such a process and presents a story of what happened when the ideal met the reality.

The Designing of the Online Chinese Course

At the heart of design is the idea of dialogue: dialogue between theory and practice, between constraints and tradeoffs, between a designer and his or her materials, between the designer and the user or learner.

-- Mishra, Zhao & Tan (1999, p. 221)

The designing of this online Chinese course was such a reiterative ‘dialoguing’ and balancing process. The materialization of the design framework in this course was subject to the designers’ interpretation of each principle, the constraints of the designers’ capacity and the resources at disposal, and the instructional context of this course. The design goal was to realize the design principles delineated in the synthesized design framework, and the following section would focus on the designing and redesigning of each design principle.

Course Communication

Principle 1: Various Opportunities for Interaction

Sub-goal one: abundant opportunities for interaction. Since this course was a semester course and the virtual high school decreed the students be asked to study for this course one hour each day and five days a week. Thus, it was envisioned that the students

would spend the first two days studying the e-textbook on their own. Then the students needed to spend the next three days interacting with the instructor and each other through virtual meetings. The first virtual meeting would focus on students raising both linguistic and cultural questions that appeared while studying the e-textbook¹², and discussing those questions with each other and with the instructor. To give learners abundant opportunities to interact with each other and provide them with more learning opportunities from each others' questions, this session was envisioned to be in the whole-class format. The second virtual meeting would focus on chatting with invited Chinese-speaking guest(s) on the cultural theme highlighted in the e-textbook for the particular week. To give learners chances to get various input from different native speakers so as to better capitalize on the collective intelligence of the native speakers, it was envisioned that the chatting would be in several groups with several native speakers respectively. The small-group chatting would be followed with a whole-class sharing and discussing session with the instructor to provide an opportunity to elaborate on the culture issues and to explain the linguistic problems encountered during chatting. Considering the language proficiency of the learner, the chatting would be conducted mainly in English at the beginning and then gradually transit to more and more Chinese. The third virtual meeting would focus on group collaboration over some projects to provide more opportunities to interact with each other. In addition to those synchronous in-class interaction opportunities, to provide

¹² The e-textbook used in this course is Chengo Chinese, a web-based online Chinese program co-developed by the U.S. Department of Education and the Chinese Ministry of Education for middle school students. This program takes a "model, practice, and apply" design. It integrates animation, gaming and voice recognition techniques to illustrate the story of several students in a language camp and their experience during six month's home-stay in China. In this course, this electronic text-book is used in a self-study fashion. The particular e-textbook was chosen because this was quite a web-based Chinese learning program with much authority and was developed with both self-learning and classroom instruction in mind, and thus was a good fit for this semester online Chinese course format.

more chances for learners to interact with each other “outside-of-class”, opportunities for asynchronous interaction would be created as well.

However, the conflicting schedules of the high school students made it impossible to arrange whole-class virtual meetings. Even for one virtual meeting session, five time slots were needed to accommodate the schedules of the students. Thus, the plan on whole-class session could not be implemented. Now, the instructor had to take five separate slots to finish one virtual session. It was impossible for the instructor as well as the students to have three virtual class sessions each week as laid out in the original plan, since doing such would impose daunting demands on the instructor’s time, which was all but impossible. As a result, the three virtual class sessions had to be condensed to one virtual class session each week. Because of this, the content planned to be covered in one week had to be extended to two weeks. Thus the pace of the course had to be slowed down: two one-hour virtual class sessions over two weeks needed to be taken to cover the learning content for one episode of *Chengo Chinese*¹³. A corresponding adjustment on the time to spend on each specific virtual session activity was also called for. Since the students were going to spend four days self-studying one episode for two weeks, each virtual meeting needed to set aside some time for e-textbook problem troubleshooting. The cultural chatting needed to be shortened to leave enough time for group collaboration which required a lot of time when conducted online. Busy schedule of the high school students also made several students unable to attend some virtual meeting sessions, and thus it was decided that the virtual class sessions each week would be recorded and posted on Blackboard so that the students who could not make their virtual class sessions could

¹³ Two weeks’ virtual sessions to cover one episode was decided on because one virtual session would definitely be unable to cover all the contents planned and more than two weeks’ session would slow down the pace of the course too much.

access the virtual class sessions at any time and that students could use those recordings as review materials as a compensation for the limited opportunity for synchronous interaction and as additional learning resources: learning through listening to the interaction during classmates' classes.

In addition to the virtual meetings, the students were expected to use the asynchronous interaction each week to share learning resources and engage in social talk with each other. The asynchronous interaction was intended to be realized through posting on the discussion board embedded in Blackboard. And this design plan was easy to realize with Blackboard. Several discussion forums were built in the discussion board within Blackboard. Furthermore, the students could also send their instructor messages in the message center embedded in Blackboard.

Sub-goal two: the opportunities to interact synchronously in both written and oral mode. The realization of this sub-goal was reliant on the proficiency level of the target learners and the technological capacity in the instructional context.

The target learners of this course were absolute beginners of Chinese. Their extremely low proficiency in Chinese made it unreasonable to expect written mode to be the major interaction means in Chinese. Furthermore, at this proficiency level, the most reasonable means of written interaction was pinyin, and written chatting in pinyin was hard to authenticate since current chatting programs did not support automatic conversion and representation of the tones of pinyin. Oral mode of interaction in Chinese might be a better fit for learners at this proficiency level, and it could also help develop learners' communicative competency in the target language, which was a major motivation and motivator for learning the foreign language especially at the beginning level. Because of the above considerations, it was designed that this course would focus on oral mode of

interaction but use written mode of interaction intermittently, mainly on the instructor's and other native speakers' side, as explanation aids.

This course was the first course in this virtual high school to request virtual meetings, and thus this virtual high school was not well prepared to provide stable and well-established conferencing system for this purpose. The virtual high school suggested using the embedded virtual classroom module in Blackboard since they wanted to keep everything within the course management system used in this high school. However, although this module had whiteboard and text-based chatting functions, it did not support audio conferencing. Stressing the importance of oral communication in this course to the virtual high school persuaded them to search for audio conferencing systems. Due to the price consideration and the consideration that it would be better to use the current system, Blackboard, that they were already licensing, they only searched for a simple audio conferencing system as an add-on to the virtual classroom module in Blackboard. Thus, an audio-conferencing system, TeamSpeak 2, was licensed for this purpose. TeamSpeak 2 was chosen due to the consideration of “local server hosting, functionality, ease in management, scalability, and pricing” (CTO, virtual high school, personal communication, 2006): this audio-conferencing system had the ability to scale to thousands of simultaneous users supporting online gaming, and its price was extremely low. However, the kick-off sessions on the virtual classroom module in Blackboard revealed that its performance was not very stable and it constantly disrupted the ongoing of the virtual meetings (the instructor and the learners were constantly ‘kicked-out’ of the session without their awareness regardless of their connection speed). Reporting this problem to the virtual high school led to the drop-off of the use of this virtual classroom module on the second week. The virtual high school decided to open a conferencing

system -- Picture Talk, which was currently used by the staff in the virtual high school for internal conferencing purposes, for the use of this class. Although Picture Talk had an audio interface, it was only designed for one-to-one usage. This conferencing tool had great documentation presentation features and embedded text chatting features, thus could serve as the teaching platform and supplementary text chatting purposes. However, Picture Talk did not allow students to draw on the blackboard or working on the same document on the whiteboard, and thus was not very friendly for group collaboration activities. Nonetheless, the short time frame did not allow the searching and testing of new conferencing systems for stable performance. As a result, the virtual class sessions were hosted in two platforms: Team Speak 2 for audio conferencing and Picture Talk for text conferencing and document presentation on the side of the instructor.

Sub-goal three: interaction with various interlocutors. In order to capitalize on the collective wisdom of the native speakers of Chinese in addition to the instructor so as to provide more language and culture input to the learners. It was originally designed that several native speakers of Chinese would be invited into the cultural chatting sessions to interact with small groups of students before the students reconvene into whole-class session to share information they acquired from their respective chatting sessions. However, because of the change on the time span that can be allotted to the cultural chatting activity due to the time constraints and schedule conflicts elaborated above, the limited time available for this activity and the impossibility for whole-class session did not allow the original first-small-group-then-whole-class design. And also because students had to take this class on one of the five time slots each week, inviting five different native speakers of Chinese for each time slot was not very economical and implausible since it meant either inviting a lot of native speakers of Chinese or asking the

five native speakers of Chinese to join the class every other two week at a fixed time. Neither of these two options would work since it was not easy to find enough volunteers to come to the chatting session to meet the needs for this course, to say nothing of keeping them come back constantly at the time of the virtual meeting for those different time slots. Thus, it was decided that every other two weeks one native speaker of Chinese would be invited to cover all the five culture chatting sessions. However, it turned out that we could not find native speaking guests who could come at all of the five sessions, and in most cases, the invited native speaking guest could come to two time slots at the most. So the instructor had to cover the rest of the time slots using the same cultural materials. Thus the original intention of giving students opportunities to interact with more native speakers of Chinese did not really work out.

Principle 2: High Quality Interaction (Negotiation of Meaning and Culture Understanding)

To provide students with opportunities for negotiation of meaning, we envisioned using some communication tasks that would invite students to co-solve some language problems and/or interact with each other to reach some communication purposes. The selection of those tasks was sort of a struggle. One the one hand, the literature suggested that tasks in which the interlocutors hold different portions of the information and are required to request and supply the information to each other so as to achieve the common goal of reaching the only one acceptable task outcome would be the ones that facilitate negotiated interaction (Pica, Kanagy & Falodun, 1993). Thus, ideally, to fulfill our design goal of eliciting negotiation of meaning, we need to provide students with two-way communication tasks. However, the target students were beginning-level high school students of Chinese online who had little Chinese proficiency to start with and who did

not have physical cues at their disposal to help them comprehend and communicate in Chinese since no video-conferencing system was utilized in this class due to the high demands of such system on connection speed. Thus practically speaking, it was impossible to use such communication tasks at the right beginning. It was decided that to scaffold the learners into active engagement in negotiation of meaning in Chinese, it might make more sense to start with more structured language tasks and allow learners to talk about the language problems in English but encouraged and guided them to gradually use more and more Chinese to engage in negotiated interaction. Thus in this course, both highly structured language tasks and more open-ended communicative tasks were designed: reordering the words in a sentence, reordering the sequence of sentences in a dialogue, dictogloss tasks, give instructions based on a picture, picture description tasks, picture difference tasks, and so on. The focus of each language task was to be consistent with the language and cultural theme of the week reflected in the e-textbook. The tasks were sequenced according to the following rules: to proceed from the more structured to the less structured with those that involve mechanical manipulation of linguistic structures at the beginning followed by those that elicit more L2 productive languages, and to transit from the use of English to more and more use of Chinese to solve those tasks. This sequencing of the tasks was based on the consideration that, with the linguistic limitations of beginning-level language learners, it would make more sense to gradually increase the linguistic and cognitive load of the tasks to ease the learning process. Those communicative tasks were expected to elicit negotiation of meaning both among the learners and between the learners and the instructor.

To enhance cultural understanding, bi-weekly cultural chatting was designed. It was also designed that students would exchange and share cultural questions and

resources asynchronously in discussion board. And thus a discussion forum was established in the discussion board in Blackboard, and students were encouraged to post their questions and answer each others' questions about culture in this forum.

Principles 3: High Quality Interaction (Timely and Informative Feedback and Effective Communication of Assignment Instructions and Expectations)

Weekly virtual meeting sessions were expected to serve the purpose of providing timely and informative feedback to the students. The way the virtual meeting sessions were designed (inviting and answering students' questions about the e-textbook, engaging students in language tasks, and inviting students to discuss about native speakers to culture issues) was expected to encourage students to ask questions and produce Chinese so that the instructor and other peers would have chances to provide feedback, either negative or positive, to their questions and on their language production. To compensate for the limitations that some students could not attend virtual meeting sessions and that the time available for virtual meeting was quite limited, asynchronous means of feedback were also made available through discussion board Q&A, instructor feedback to assignments in Gradebook in Blackboard and emails between students and with the instructor through the message center in Black board.

The virtual meeting sessions were also expected to give students convenient ways to ask for clarification on assignments and on project expectations. To make the course expectations clear to the students from the right beginning of the course, a syllabus with detailed explanations on what to cover during each week was provided on the first day of the class. To make sure that the students would have a clear understanding of each week's assignments and expectations, a "start from here" link was created that arranged the

assignments for each week in week folders and provided step-by-step instructions on what assignments to do and how to do were provided for each week.

Principle 4: Various Communication Media

In this course, in addition to the synchronous means of communication, Team Speak and Picture Talk, asynchronous communication means was also designed to complement synchronous communication media to provide learners with rich means of interaction. The selection of the synchronous communication means went through some twists, as elaborated above. Likewise, the selection of the asynchronous communication means also met some problems. It was originally designed that some asynchronous interaction would be open to the public so as to capitalize on the collective wisdom of the public, such as eliciting the public's feedback on the students' product, tips on learning Chinese, possible Chinese learning and culture resources, and so on. Thus it was envisioned that public Blog and collaboration tools like wiki would be used in addition to the discussion board forums and message center embedded in the Blackboard to make some activities more authentic and meaningful to the students and to enhance students' ability to live in a digital world.

However, this design was not able to be carried out due to virtual high school's consideration for student privacy, as exemplified in an email correspondence with a virtual high school administrator on this issue:

"Your students are minors, i.e., underage children. As such, we must take great care in protecting their identities. Any external activity that may expose them to a sexual predator is to be strictly avoided. If a student wishes, on their own, to create a blog for their own personal use, that is between the student and their parents. However, XX should never encourage students to post information on any web server that XX doesn't own. So, no blog."

Thus in the end the plan on both the public Blog and the wiki was not able to materialize and the relevant activities were instead hosted in the Blackboard.

Course Structure

Principle 5: Task-Based Instruction

To materialize Doughty and Long's (2003) conceptualization of task-based distance foreign language learning, we aimed at designing a series of interconnected language learning tasks and an overarching task connecting all the tasks together. The e-textbook itself adopted a task-based instruction format, revolving around the adventure story of a boy in China and a series of relevant language and cultural tasks. However, since the e-textbook was designed for self-study, those language and culture tasks were more of independent nature and the majority of them belonged to mechanical language practice. What was lacking in this e-textbook was language and culture tasks that were of more communicative nature and would call for group collaboration and meaningful language use. Thus group problem-solving language tasks and group cultural chatting tasks that revolved around the language and cultural themes in the episodes of Chengo Chinese were designed to make up for this limitation. The e-textbook was used as the line that threaded those different tasks together. An overarching task was also designed to link all the tasks in this course. We expected that the most appropriate overarching task for language learning would be tasks that required learners to use the language and culture knowledge they have accumulated throughout the course for either communication and/or cognitive purposes. Thus we designed that, throughout this course, the students would work on an overarching task, i.e., to write about Chinese culture using Chinese. Each group of students was supposed to write something related to living or traveling in China

or description of Chinese culture and practices with around 60% of the text in Chinese. The students were free to choose the genre and content for the writing project.

We wanted the group problem-solving tasks to be inherently connected so that what the students could get out of those tasks were not just isolated and separated pieces of conversation, but experience that were internally linked and worked together towards one goal. Doing individual communicative tasks without embedding them into meaningful contexts in a coherent way always made the tasks feel artificial and boring. But embedding those tasks within a coherent story and making those tasks an integrative part of the story would give more sense to those tasks and make the students feel more motivated to continue those tasks and perceive those tasks as related and meaningful. We envisioned that it might be viable to embed those language tasks in stories, and to make those language tasks part of the story and students must solve those language problems before continuing with the rest of the story. By thus doing, more Chinese input could be provided to the students in an intriguing way and more impetus was provided for learners to solve those language tasks. However, the selection of the story itself was not an easy task. We basically had two choices: a Chinese classic story which would provide more cultural input to the students and give students a great sense of accomplishment; or an English classic story which would provide more contextual and background cues for the students and was easy for learner to relate to. Since we decided on the story itself as a way to provide additional target language input, English classic story was chosen as a more appropriate option since reading a familiar story would reduce the cognitive load of the task and facilitate the linguistic part of the task, which was crucial for absolute beginners, and that familiar context could also help learners to guess the meaning of the new Chinese vocabularies in the text and make the task less daunting to those beginning-

level students. Once we decided on an English classic story, we were challenged with another decision: which specific English classic story to choose? Wizard of Oz came to our mind as an option since it was a story that was very familiar to the target population, and the uncanny and imaginary nature of the content held lasting glamour to people of all ages, youngsters in particular. Once the specific classic was chosen, another problem arose: how to keep faith to the original plots and at the same to observe the sequence of the corresponding language themes in the e-textbook that those language tasks needed to feature? It was decided that the former had to be sacrificed to keep the connection between the e-textbook and the language tasks in this group problem-solving project, and thus the story was changed to serve the latter. As for the technological representation of this story, due to our limited technology capacity and the short time frame for the preparation of the course, we decided to present each chapter in the form of Power Point with some pictures from Wizard of Oz cartoons as rough background cues, with audios embedded, and with English translation of the text available as learning aids. The Power Point files were saved into Power Point Show files so that students could open them directly within Blackboard and view it through the browser, which avoided the potential script incompatibility problem and saved students from going through the trouble of installing Chinese language pack on their computers.

The group writing project was originally envisioned to be hosted in wiki so that the public might serve as great channels of resources, feedback and motivation, and that it could provide a more convenient and efficient means for such group collaboration. However, due to the student privacy problem elaborated above, this plan was not able to be carried out. The group writing project had to be conducted in the form of group discussion forums.

Principle 6: Emergent and Learner-Based Linguistic Instruction

The e-textbook itself followed emergent linguistic instruction principle and only provided brief grammar instruction on limited items. To realize this principle in the other learning activities, all the linguistic instructions and explanations were designed to be conducted in an emergent fashion. The activities during virtual sessions basically followed a learner syllabus. The troubleshooting of the e-textbook during the virtual sessions was designed to be mainly based on the questions students raised about each particular episode of the e-textbook. The group activities, i.e., the cultural chatting, the problem-solving project and the group writing project, were designed to be conducted in a chatting fashion among the learners and between the learner and other native speakers, and the role of the instructor was set to facilitate the discussion and answer emergent questions about the language and the culture.

Principle 7: Variability in Course Structure

To enhance the variability of the learning activities, various forms of learning tasks, ranging from self-study of e-textbook to group online chatting for different pedagogical purposes with different interlocutors were designed. The variability of the assignments and assessments was materialized through designing a range of language and culture assignments: different group projects; audio recording of the spoken assignments; interview assignments, several quizzes throughout the semester. Furthermore, students were allowed to approach the assignments in different ways, the group writing projects in particular. The writing project was designed to be open-ended and students were given freedom to basically decide everything about the writing project except for the expectation on the portion of Chinese in the final product. Although the types of activities in the virtual meetings were fixed, most of the specific contents were to be determined in

an emergent fashion (e.g., the troubleshooting of the e-textbook depended on the questions students raised; and the focus and the progress of the cultural chatting depended on the questions students raised and the specific issues that raised their interest).

Principle 8: Strengthening Learning Management Ability

To strengthen students' learning management ability, a weekly self-reflection blog was designed to engage students in active reflection of their learning processes, successful and unsuccessful strategies, the items they needed to pay particular attention to, and frustrations they encountered in each particular week.

It was envisioned that the self-reflection blog be hosted in a public blog to invite help not only from fellow classmates but also from the public at large. However, this design was also not able to be realized due to the same student privacy concern discussed above. Thus all the self-reflection blogs had to be conducted in discussion board within Blackboard. A self-reflection blog forum was set up in the discussion board for students to enter their weekly reflection. To make those postings keep the blog flavor and serve as a better record of the learning paths and progress of each individual learner, it was designed that each student was required to keep only one entry in the forum and they were to update their reflection for the rest weeks on the same entry.

Principle 9: Formative Assessment

The group projects, weekly assignments and regular quizzes would all work together to serve as the formative assessment mechanism in this course.

Principle 10: Co-Construction of Learning Environment and Experience

To encourage learners to co-construct the learning environment and experience, a language and a culture forum were set up to encourage students to share the language and cultural problems they encountered during studying. A help forum was also set up for

learners to share their frustrations with each other, help alleviate each other's frustrations and address each other's problems, and socialize with each other. It was also expected that students would read each other's self-reflection blog and share strategies with each other and help each other along the learning process. A learning resource forum was also set up to encourage students to actively seek Chinese learning resources and share those resources with each other. In addition, it was designed that students would be able to construct communal learning resources together through adding vocabularies relevant to each week's topic to the glossary. However, Blackboard did not allow students to edit or add entries in the glossary, and hence made glossary a closed system and not friendly to such co-construction design. Thus this design was not able to be realized in this course.

Summary of the Design

All these design dialogues resulted in the following design of the online Chinese course (see Table 5):

The students self studied one episode of the e-textbook, Chengo Chinese, every two weeks, and each week each student attended one small-group virtual class session. Every one episode of the e-textbook was expanded and elaborated in two virtual class sessions: in one session, students discussed the linguistic and cultural problems about the Chengo Chinese episode, chatted with a native speaker guest on Chinese culture theme of the week and cross-cultural differences, and worked on the problem-solving project; in the other session, they continued discussion on the episode, discussed their group writing project, and continued to work on the problem-solving project. Each virtual class session used Team Speak for audio conferencing and Picture Talk for text conferencing and instructor document presentation from the instructor.

Recordings of the weekly virtual class sessions were updated on the Blackboard. Students posted their language and cultural questions on the Blackboard and updated their self-reflection blog and group-writing project each week. Throughout the semester, the students were encouraged to contribute learning resources and connect to each other through posting on the discussion boards.

Table 5
The Instructional Layout for Each Episode of Chengo Chinese

	Time Span	Content
Week 1	Four days	Post and discuss language and cultural questions on Chengo Chinese on discussion board Self-reflection blog
	One day (1 hour virtual meeting)	Q&A on Chengo Chinese Cultural Chatting Problem-solving project
Week 2	Four days	Self-study of Chengo Chinese Post and discuss language and cultural questions on Chengo Chinese on discussion board Self-reflection blog
	One day (1 hour virtual meeting)	Q&A on Chengo Chinese Group-writing project Problem-solving project

What Actually Happened ...

Schedule Change and Technical Problems

Slowed-Down Schedule

Some students had encountered problems getting into Blackboard, and quite a few of them had difficulty getting into the other two conferencing systems. Due to those technical problems, the class slowed down on its progress and the original schedule was postponed to three weeks behind. For the first three weeks, the class mainly worked on introducing pinyin and practicing pronunciation of key words and phrases from Chengo

Chinese episodes during the virtual meeting. It was not until the fourth week that the group writing project was introduced, and not until the sixth week that the cultural chatting and the problem-solving project were introduced. Although the first 20 minutes of each virtual class session were planned on troubleshooting student-raised questions on Chengo Chinese, few of the students actually raised any questions. So for this time slot, the instructor focused again on the pronunciation of the words in addition to answering questions, if any.

Furthermore, a major obstacle to teaching language online is the assessment issue, as reflected in some instructors' survey response: "I do have a problem w/ cheating in my class"; and "(the students) are less afraid to cheat because they don't know me personally". Because the students in this online Chinese were dispersed here and there, this course was designed to hold the quizzes and exams during the virtual meeting sessions to avoid potential cheating issues. Since there were altogether 4 quizzes and exams, it took away quite a portion of the virtual meeting sessions, which also led to the slowing down of the course schedule.

Technical Problems

Throughout the semester, learners encountered various technical problems with the e-textbook and the conferencing systems.

E-textbook. Quite a number of students encountered a series of technical problems with this program like "It keeps closing me out," "I had a very difficult time to get the Chengo Chinese program to work, since according to the little monkey, the system could not 'recognize my voice'," and "It will randomly shut down on me when I play certain games or do certain things on it. Its really frustrating especially when my time schedule is very tight." Even far into week 7, some students still commented on the technical

problems with Chengo Chinese in their self-reflection blogs: “Technically I am still having trouble with chengo Chinese,” and “Again the Chengo Chinese is frustrating.”

Team Speak and Picture Talk. Team Speak is an audio-conferencing system, and it requires learners to download it onto local computer in order to run it. The downloading requirement caused problems for those students who attended the virtual session at school. Since the majority of K-12 schools had strict firewall configurations and most local schools had to coordinate with the district tech department to resolve the firewall issues, some students encountered problems downloading Team Speak onto their school computers. Some students could not get into Team Speak until several weeks later. One student had problem installing it permanently on the school computer due to the firewall issues and did not get on Team Speak until the 9th week.

Picture Talk did not cause much problem since it only required a computer with a Web browser and an Internet connection to join Picture Talk. No downloading was required. Picture Talk had cross-platform capabilities and accommodated all connection speeds. Thus students did not encounter much problem with this software.

Combining two conferencing tools to serve the virtual meetings caused some technical overload that offset the effect of virtual meetings: “It was good for learning to speak the language but the technology was too much for my computer, I couldn't get Picture Talk to work which made things very difficult;” “but the online connections sometimes got messed up;” “However, it did get frustrating when my microphone would refuse to work for some reason or another;” and “I didn't like them because of the technical problems the first couple weeks.”

Class recordings. As mentioned previously, each week's virtual session was recorded and posted in Blackboard to help those who cannot make the virtual sessions for

some sort of reasons to catch up with the class. The virtual session was recorded using Audacity, a shareware, and then converted to MP3 files. However, the converted audio file was quite big, and a 15-minute audio file would be around 13 megabyte. Thus, it turned out that although those recordings were available online, some students found its file size too big to download with their Internet connection.

Students' Reactions to Different Components of the Course

Virtual Meeting Sessions

Students met in small groups of 3-7 in a fixed one-hour virtual session each week based on their schedules. Among the 19 students who filled out the survey, 11 of them attended all but 1-4 of the virtual meetings due to “Spring Break” or “conflicting schedule;” and 10 of them accessed the recordings of the virtual meetings either for quiz preparation purposes or to make up for the sessions missed. The log file in Blackboard also showed that the click rate of the virtual class recordings was somewhere around 450 times, and a few of the students clicked on this section more than 20 times.

Generally speaking, students' reactions to the virtual meeting were quite positive. When asked about their opinions on the virtual meeting sessions, all of them expressed enjoyment with this component. For instance, one student wrote: “The virtual meeting sessions were invaluable in my learning of the Chinese language.” Another remarked: “I like how they are set up and how efficient they are.” And another noted: “The virtual meeting sessions were the most helpful of all, I really liked the format.” During the email “interview”, when asked about the strength of this online course, several students nominated the virtual meetings: “I think that the strength of this course is the class meetings that we have weekly. They often vary in material, and are therefore always interesting and informative;” and “I think the strength of this course is being able to talk

to the teacher directly. Because Chinese is such a hard language to learn, the student needs to be able to talk to someone who does speak Chinese. TeamSpeak accomplishes that.”

Students’ comments also revealed that the weekly virtual meetings played several roles in their online language learning. First, students felt the virtual meeting sessions served the language learning purposes. 84% of the students agreed in the end-of-semester survey that weekly virtual meeting helped them improve spoken Chinese competency. As students remarked, “I like the virtual meeting sessions because you get to know if you are pronouncing the words right and you can get more help from the instructor;” “Actually speaking it to each other is extremely important though! We do this during our weekly meetings, this is essential to the learning of a language, and especially the tones in Chinese;” and “It was also important to actually speak and repeat the Chinese words spoken from an actual person.” 74% agreed that weekly virtual meeting helped them acquire vocabulary and sentence structures: “I felt that they really helped me with pronunciation and learning how to structure sentences.” And 74% agreed that weekly virtual meeting helped them with understanding of the culture, as one student remarked: “I especially enjoyed the culture sessions.”

Second, students also felt that virtual meetings helped to build a sense of community and strengthen the connections with the instructor and with other classmates. As revealed in the end-of-semester survey, 68% of the students agreed that weekly virtual meetings gave them a sense of belonging to a group. Some students remarked that virtual meetings gave them a sense of “real” class: “I liked them because it gave everyone in the class a time to come together to feel more like a class;” “I liked the interaction between instructors, group members, and lectures. It felt like I was truly attending a class;” and “I

like them because it's actual time with the teacher, like in a normal class." Other students liked the virtual meetings for the increased interaction with the instructor and the classmates: "I liked the meetings because they allowed me to interact with my classmate and teachers;" "I like being in complete contact with my group, and getting to know them as people;" and "I liked that everyone was able to get together and talk about concerns and help each other in the class."

Third, virtual meetings also helped to ease the flow of the communication in this course through clarifying assignments and providing immediate feedback. In the end-of-semester survey, 84% of the students agreed that weekly virtual meeting helped them clarify the assignment, for instance, "The weekly virtual meeting is a must just to catch up and touch base to make sure everyone is on the same page." In addition, "The virtual meetings every week are great to get 'human' help on issues that you are not able to troubleshoot by yourself and with the software," since "a program can only do so much." Furthermore, students also frequently commended virtual meetings on its function to provide immediate feedback: "The virtual meetings are great. I love being able to follow along, correct my mistakes, and also have the teacher answer my numerous questions right away;" "I like being able to talk to my Chinese instructor because I can get direct correction in all my tones and such;" and "I liked also that we could ask questions that we had, with out having to email and wait for a response."

Group Problem Solving Project

Students' opinion on the Wizard of Oz project was kind of split. Among the 19 respondents of the end-of-semester survey, 13 liked this project, but 5 of them expressed dissatisfaction with it. The majority of the complaints about this project was its lack of

clarity. Some students felt it was “confusing,” and they “didn’t understand it and how to make it work.”

This project was liked for it being “challenging,” “engaging and enjoyable,” “something new to the class,” “use what we have learned from the past classes and apply it to the story,” “a recognizable story,” and for its ability to help “learn a lot about the structure of the sentences” and “broaden vocabulary.” Thus the project did fulfill part of its purposes, i.e., to present a chance for learners to use what they learned in other materials in new situations and to increase the language input to the learners. It also served the formative assessment function, as reflected in one student’s blog entry “I am having some troubles with the Wizard of Oz part of the group meetings, due to the fact that I don’t know all of the pinyin by heart. I do feel though that I am getting better at this so I know im improving.”

However, a major purpose of this project failed to realize in this course. The main purpose of this project was to create an opportunity for focus-on-form through instances of negotiation of meaning. The design was to encourage students to read the story together and ask each other questions on the part they didn’t understand, and then to work on the language puzzle together, challenging each other on their hypotheses and clarifying each other’s understandings. At the first session when the instructor introduced this project, she intended to go as planned and let the students work on the project themselves with her providing help when necessary. However, she was greeted with enormous silence and had to start leading the students through the story, guiding them to understand each sentence. When it came to the language puzzle part, it was mainly the case that one or two students provided the answers and the others simply remained silent.

Thus not much interaction was going on, not even in L1, to say nothing of negotiation of meaning. This same situation stood regardless of the size of the group.

Group Writing Project

The group writing project was intended to give the students a chance to collaborate together and apply what they learned about the language and culture through writing a story related to China in Chinese. The students communicated with each other mainly through the group writing forum in the discussion board and occasionally through discussion during the virtual meeting sessions.

Overall, 63% of the respondents of the end-of-semester survey believed that the group writing project helped them a lot in learning the language, 58% agreed that group writing project helped them a lot in learning the culture, and 68% of them held that the group writing project helped them to relate to other classmates in the course. Their general impression of this project was that it was a fun and creative project to do, that it helped to “get closer to a few students,” “able to communicate more with (my) group,” and “feel like a real class”, and that it helped “understanding how to create sentences.” But the major complaints about this project included group management and coordination issues, procrastination and hard to communicate solely online.

Due to the fact that students had to work on the group writing project mainly asynchronously through posting on the Blackboard, there had been great frustration over the management and responsibility issue. First, due to its asynchronous fashion, it took almost all the teams more than a month to get through the idea stage although the students were quite diligent in posting ideas in the discussion board, which might be easily decided on in one or two small portions of virtual sessions. Also all the teams proceeded through designating each member to be responsible for one paragraph and then

scrambling the paragraphs together to form the final product. Thus to some extent, this project was transformed into individual works under the disguise of group project, and thus deviated from its collaborative intention. Second, due to its asynchronous fashion, some students procrastinated, which led to one or two members ending up doing the work for all. As reflected in some students' postings, "All weekend I worked on translating the Group Writing Project, since it seems like some of my teammates have simply disappeared;" and "okay seriously we have to turn this in today where is everyone...and why am i left here with the assignment to do all by myself....i cant speak chinese as well as you two or at least shian...help!!! if im forced to turn this in without you guys its gonna stink."

Discussion Board Postings

The discussion board postings included students' weekly self-reflection blog, postings on their questions about e-textbook and about culture, and postings to share concerns and offer help to each other. The purpose of the postings was to encourage students to regulate and manage their learning through reflecting on their weekly learning experience, and to encourage them to co-construct a learning community in which they share learning resources and help each other.

In all, discussion board postings fulfilled, to some extent, the social part of the learning community, i.e., to relate to each other, help each other with concerns and encourage each other, whereas they failed to realize the intellectual part of the learning community, i.e., to help each other with language and culture problems and to share learning resources with each other.

Students had mixed feelings about the self-reflection blog. They could see some good aspects of self-reflection blog: 1) monitoring one's own learning process both

cognitively and emotionally: “I think it really helped me see where I was and what I needed to be doing;” “It also always gets me fired up for the week to come;” and “(It) helped me to release stress and to face the work that I had to do;” 2) providing a chance to help each other: “You could find people to help you and people you could help;” 3) relating to others: “It helped me connect to the other classmates seeing the problems they had;” and 4) serving as a vent of feelings: “It lets me get my concerns out;” and “I liked that it gave me an outlet for my frustrations”. However, at the same time, they also expressed their frustration of having really nothing important to say at times, especially towards the end of the semester where they were not having many problems, and quite a few of them just took it purely as another assignment to do.

Most of the students have kept their blogs from the beginning to the end. The majority of the self-reflection blogs were about expressing their problems, venting their stress and voicing their concerns in learning and in life, and quite a few were about encouraging themselves to keep on the good work. Not many students responded to each other’s postings (altogether there were 11 response postings throughout the semester), and unfortunately the log files in Blackboard does not provide information on how often students checked into each other’s blog. Thus, it seems that the self-reflection blog did serve the function of self-encouragement, emotional management, and possibly, as students reported, a chance to relate to others. But the blog failed to serve the purpose of building a climate in which students actively adjust their learning strategies and helping each other with learning problems and strategies.

As for the other discussion board postings (Chengo Chinese and culture questions, sharing learning resources and helping each other), a handful of the students expressed favorable opinions about them. Among the positive things said about those postings were:

chance to ask questions and seek help from others, get to know others' problems, opportunity to communicate with each other. In addition to the above-mentioned functions, discussion board also served as a bridge or starter for more interaction between the students. In this online Chinese course, at the right beginning, someone suggested on the postings that they might want to interact with each other on Instant Messenger. This suggestion initiated an AIM group of around six students who were actively interacting with each other on a daily basis. Despite the positive comments, students also expressed frustration over the uncertainty of getting responses, "sometimes, it seems to take forever for someone to answer a question that I had."

A check into the discussion board postings showed that students responded quite diligently in the forum on questions concerning help and questions about assignment, but almost no responses were given to the e-textbook and culture questions and no student postings in the learning resource forum either. The fact that asking questions about e-textbook and culture was a weekly assignment had led quite a few "no new questions" postings.

Table 6 summarizes the changes that were made out of the negotiation between the ideal design and the K-12 contexts (technological capacity, privacy issue, scheduling issue, etc.), the particularities of online teaching (cheating issue, lack of group cohesion and course commitment due to the anonymity, difficulty of keeping every student on the same page, etc.), and the specific student population (the low proficiency level, the geographic dispersion, etc.). Thus the design of the online foreign language learning environment needs to take into account the potential impact of various contextual factors and student backgrounds so as to seek a great fit between the design and the context.

Table 6

When the Ideal Met the Reality...

Design Framework		Original Design	Final Implementation	What really happened
Course Communication	<ul style="list-style-type: none"> lots of opportunities for various forms of interaction with different interlocutors in both written and oral modes 	<ul style="list-style-type: none"> 3 virtual meetings a week & weekly discussion board postings whole-class & small-group meeting learners & native speakers 	<ul style="list-style-type: none"> same except 1 virtual meeting a week and only small-group virtual meetings 	<ul style="list-style-type: none"> The majority attended the virtual meetings frequently
	<ul style="list-style-type: none"> high quality interaction with lots of chance for negotiation of meaning and cultural understanding. 	<ul style="list-style-type: none"> negotiation of meaning during problem-solving and group-writing projects weekly cultural chatting with NS 	<ul style="list-style-type: none"> Class recordings were provided same except shortened project sessions and biweekly cultural chatting; group-writing projects were no longer held in wiki but in Blackboard 	<ul style="list-style-type: none"> Scheduling issues prevented some from attending Technical issues disrupts virtual meetings in the first several weeks no negotiation of meaning happened during problem-solving projects Only two problem-solving and cultural chatting sessions were materialized in the course The intended collaborative nature of group-writing project failed to materialize
	<ul style="list-style-type: none"> high quality interaction with quality feedback in a timely manner and effective communication of assignment instructions and expectations. interaction through various communication media and different media will be used for different interaction purpose. 	<ul style="list-style-type: none"> instructor feedback during virtual meeting and assignment feedback peer feedback during group projects and discussion board postings clear syllabus and detailed learning objectives at the beginning of the semester opportunity for assignment clarification during virtual meeting synchronous text and audio conferencing for group projects and e-textbook troubleshooting asynchronous discussion board postings for self-reflection, community building, and supplementary discussion on e-textbook 	<ul style="list-style-type: none"> same same except pronunciation practice in place of troubleshooting during virtual meetings 	<ul style="list-style-type: none"> Not much peer feedback in discussion board postings Design realized

Table 6 (cont'd).

Design Framework		Original Design	Final Implementation	What really happened
Course Structure				Design realized
<ul style="list-style-type: none"> task-based instruction with interrelated and coherent tasks to foster a learner-centered learning environment. 	<ul style="list-style-type: none"> problem-solving projects and cultural-chatting revolve around e-textbook tasks, and together serve the writing project 	same		
<ul style="list-style-type: none"> focus on form & emergent and learner-based linguistic "instruction". 	<ul style="list-style-type: none"> no formal and systematic instruction in e-textbook and virtual meetings; linguistic instruction based on learner-raised question about e-textbook and during group projects 	same		Design realized except that systematic instruction on pinyin was carried out at the beginning of the course
<ul style="list-style-type: none"> cater to various learning needs and styles 	<ul style="list-style-type: none"> different types of projects and assessments 	same		Design realized
<ul style="list-style-type: none"> activities that help learners to strengthen their ability to manage their own learning. 	<ul style="list-style-type: none"> self-reflection blog and sharing of learning strategies in discussion board emergent suggestion on learning strategies from the instructor 	Same except the blog was no longer hosted in public area but in Blackboard	<ul style="list-style-type: none"> Although students posted weekly self-reflection blog, they reported lack of interesting things to say occasionally and complained about no responses from peers The blog was used more for emotional management than for strategy reflection and sharing 	Design realized
<ul style="list-style-type: none"> constant formative assessment 	<ul style="list-style-type: none"> audio assignments; regular quizzes; group projects 	same		Design realized
<ul style="list-style-type: none"> active learning community through co-constructing class resources and helping each other with their learning process 	<ul style="list-style-type: none"> sharing learning strategies on discussion board learner-built glossary and learning resources troubleshooting each other's questions in discussion board 	same except no learner-built glossary	<ul style="list-style-type: none"> Not much sharing of strategies went on in the course Lack of peer responses in discussion board 	

CHAPTER 5

CRUCIAL FACTORS TO ONLINE FOREIGN LANGUAGE LEARNING

This chapter presents the regression analyses on factors that affect students' perception with their online foreign language learning experience and the summary of student-perceived importance of factors in online foreign language education. The analyses were based on the student survey response data and student interview data.

Regression and Correlation Analyses

In this virtual high school, the distance foreign language courseware (French, German and Spanish) were purchased from an accredited foreign language education company (<http://www.power-glide.com/>) and all the instructors were provided through this company. The virtual high school customized the courseware through dividing the contents into modules and sections and put them on its courseware management system, Blackboard. Thus all those distance foreign language courses were organized in exactly the same way. All the learning activities in these courses were exactly those laid out in the courseware, and the instructors did not add any additional class activities throughout the semester. As a result, there was not much variation in course structure among the distance courses on these three languages. The lack of variation in the course structure among those online foreign language courses limited the scope of course design issues that this study could test rigorously and only the course communication component of online foreign language learning design framework was able to be subjected to regression analyses. However, to some extent, regression analysis on this component of the design framework is most meaningful and insightful since it is this component that differentiates distance courses and face-to-face courses the most since interaction is the component that is most influenced by media in that communication in distance courses has to be mainly

or solely mediated by online media. Furthermore, this component is also where distance course within-variation is most salient. Regression analyses were conducted on the course communication variable together with some student and contextual variables to identify which factors might predict learners' satisfaction with their online foreign language learning experience.

Students' Positive Perception of the Course

In general, student perception of their online foreign language courses was quite positive (Mean = 5.35; SD = 0.15). Course communication alone could account for 62.9% of the variation in students' positive perception of the course, among which interaction with the instructor alone could account for 43.8% of the variation. When adding student and contextual variables¹⁴, four variables were retained in the regression model. The model was statistically significant ($p < .001$) and it explained 73.3% of the total variation¹⁵.

Table 7
Crucial Factors to Positive Perception of the Course

Effect	Regression Coefficient				t	p
$R^2 = 73.3\%$	B	SE (B)	β	Effect size		
(Constant)	-.73	.45			-1.60	.11
Course communication	.75	.08	.66	2.21 ¹⁶	9.51	.000
attitude	.16	.06	.16	0.63	2.72	.008
confidence	.24	.08	.21	0.67	2.90	.005
motivation for taking the course	.50	.17	.18	0.69	2.96	.004

¹⁴ Instructor variable was checked and was not found to have significant influence on the model.

¹⁵ A possible outlier was identified and checked, but was not to find to be abnormal case. There was no legitimate reason to exclude this case and thus it was kept in the model.

¹⁶ The effect size was calculated through $t/\sqrt{2n}$. The large effect size also suggested that it would be hard to invalidate the inferences drew from the sample, small though it was compared to the overall population, based on the indices of robustness for sample representation (Pan & Frank, 2004).

Students' perception of course communication in terms of interaction opportunities with other classmates and the instructor as well as their perception of the effectiveness of the course communication mechanism that helps to reduce confusion and frustration (clarity of instructions and expectations, timely and informative feedback, and technical and mentor support) was found to be a significant predictor of student's positive perception of the online language course. Table 7 shows that the more positively the students perceived of course communication, the more positively they would rate their learning experience ($ES = 2.21, P < .001$). This finding confirmed the theoretical argument and the findings in the meta-analyses on the positive effect of amount of interaction on general satisfaction with distance education (Zhao et al., 2005; Bernard, et al., 2004).

In addition, some student variables were also found to affect students' view of their online foreign language learning experience. It was found that the more confident the students were about their skills in taking distance courses, the more positively they would perceive their learning experience ($ES = 0.67, P < .01$). Furthermore, students' positive attitudes towards distance foreign language learning that they brought to their online learning experience also positively influenced their ultimate satisfaction with the course ($ES = 0.63, P < .01$)¹⁷. This result was in line with Bernard et al's (2004) finding

¹⁷ There might be a concern that because most of the students did not fill out the survey on confidence and attitude until 4-6 weeks into their course, students' attitude and confidence might have changed during this time lapse. Thus, the positive effect of confidence and attitude on general positive perception of the course might be boosted due to this time issue. However, when comparing the students who filled out this survey two weeks earlier ($n = 40$) with those who filled out later ($n = 40$), for confidence there was no significant difference ($t = -.819, p = .415$); and for attitude the students filled out the survey earlier held significantly more positive attitudes than those who filled out later ($t = 2.186, p = .032$). Thus although it cannot be argued that the survey time did not have effect on student's confidence and attitude, at least it could be claimed that the findings on the positive effect of confidence and attitude was not boosted due to the time lag.

that the beliefs about the effectiveness of distance course that students bring to their online courses positively predict their achievement in their online courses.

The result also revealed that students' motivation for taking the online foreign language course has positive impact on their final perception of the course ($ES = 0.69$, $P < .01$). Those students who took the course simply to meet graduation requirement tended to be less satisfied with their online foreign language course than those who took the course more for utility reasons or for integrative reasons (i.e., to understand more of the language and culture).

Reduced Feeling of Isolation

In general, the students were not very satisfied with their amount of interaction with their classmates made available in the course and felt quite isolated during the course (Mean = 3.89; SD = 0.21). A subset of the course communication variable (opportunity to interact with classmates and the instructor) was found to be a better predictor of students' reduced feeling of isolation. Opportunity to interact with classmates and the instructor alone was able to explain 41.1% of the variation in the student reduced feelings of isolation ($P < .001$), among which interaction with classmates alone could account for 38.3% of the variation ($P < .001$).

Table 8

Crucial Factors to Student Reduced Feelings of Isolation

Effect	Regression Coefficient				t	p
$R^2 = 41.1\%$	B	SE (B)	β	Effect size		
(Constant)	1.00	.42			2.37	.02
Interaction_student&instructor	.70	.10	.65	1.71	7.44	.000

Note. Interaction_student&instructor refers to the amount of interaction with fellow classmates and the instructor.

Table 8 shows that student perception of the opportunities to interact with other classmates and with the instructor in the course might be a critical factor that impacts whether they will suffer from the feelings of isolation ($ES = 1.71$, $P < .001$). The more opportunities they perceive there to be, the less feeling of isolation they would entertain. This result agrees with the literature on student attrition rate that interaction would reduce the feelings of isolation that distance education students have so often reported (Moore & Thompson, 1990), and lends support to Moore's (1989) claim that more dialogue tends to decrease distance. However, the small amount of variation in feeling of isolation that interaction with the instructor and other learners could explain suggested that feeling of isolation was a quite complex phenomenon, and could involve more factors than opportunity of interaction alone. It might be possible that the nature of the interaction has a say over feeling of isolation as well, as Rovai (2002) has suggested: "interactions that are critical or show tension or antagonism" might actually increase the feeling of isolation.

Course Grade

It was unreasonable to compare the course grades of different language courses since those languages varied drastically on the ease of learning¹⁸. Furthermore, instructor bias in grading was hard to eliminate since those courses were taught by different instructors who might vary a lot in their rigidity of grading and the skills they focused on during grading. Thus, it was not meaningful to compare the grades of those students across different online foreign language courses. As a result, the analyses on course grade focused on the online Chinese course.

¹⁸ According to the Defense Language Institute, it took a student with average language aptitude 480 hours of instruction to reach level-2 speaking proficiency in Spanish, but to reach the same level it would take the same student 1320 instruction hours (Baxter, 2006).

First, the course grades of the 15 students who participated in the surveys were correlated with their perception of the course, and it was found that the correlation was positive and statistically significant ($r = 0.93$, $p < .01$). This high positive correlation suggests that what we found to be significant predictors of students' positive perception of the course might as well have indirect impact on students' course performance via their positive perception of the course.

Then, the course grades of all the students in this Chinese course ($n = 22$) were correlated with their participation in the group writing projects and other discussion board forums. It was found that the correlation was also positive and statistically significant ($r = 0.57$, $p < .01$). This positive correlation suggests that students' participation in the asynchronous interaction with classmates was related to their final course grades.

Summary

The regression analyses suggest that effectiveness of course communication, especially the opportunities for interaction with the instructor and the students in the online course, might be a very important factor that affected students' ultimate perception of their online language learning experience. The correlation analyses on the students' final grades in the online Chinese course suggest that those factors might have indirect impact on students' final grades through their positive perception of their online learning experience.

Student Perception of Crucial Factors to Online Foreign Language Learning

In addition to the regression analyses, analyses on student survey responses and student responses to the open-ended questions in the follow-up emails were also analyzed to gain deeper understanding of the perceived crucial factors to online foreign language

learning and the perceived functions those factors play in their online foreign language learning experience.

At the end of semester, when asked what factors are important to their online foreign language learning, students viewed responsive and supportive instructor as the most important factor, followed by clear class expectations, opportunity to interact with the instructor, accessibility to immediate feedback, and engaging and fun course materials and learning activities (Table 9). This view was also shared by the instructors.

Table 8

Students Perception on the Important Factors to Online Foreign Language Courses

	All Students		Instructor	
	Mean	SD	Mean	SD
Authentic course materials and activities	5.84	1.38	6.50	1.00
Engaging and fun course materials and activities	6.04	1.27	6.75	0.43
Responsive and supportive instructor	6.58	0.90	-	-
Opportunities to interact with other classmates	4.70	1.68	5.37	1.22
Opportunities to interact with the instructor	6.38	0.89	-	-
Authentic and engaging learning activities	6.03	1.08	-	-
Opportunities to collaborate on projects	4.84	1.91	4.86	1.57
Sense of community in which learners support and help each other	5.24	1.59	5.00	1.83
Accessibility to immediate feedback	6.21	1.06	6.57	0.53
Express clear class expectations	6.41	0.82	6.71	0.49
Opportunities to talk about and learn the skills necessary for online learning	5.81	1.20	6.43	0.79
Opportunities to share strategies for online foreign language learning	5.45	1.28	5.29	1.38
Opportunities of continuous self-reflection on what gets learned and what learning strategies to use in the future?	5.60	1.29	5.57	1.39

Note. 7 indicates most important.

Students and instructors viewed the opportunities to interact with other classmates, opportunities to collaborate on projects, sense of community in which learners support and help each other as less important. However, this negative perception might be biased

since the majority of the students (students in other online foreign language courses) were not given many opportunities to try those things out, and those factors might actually be more important than students and instructors might have expected¹⁹.

Furthermore, student survey responses on areas they wanted their online courses to improve and their responses in follow-up email “interview” also revealed several issues they valued in online foreign language learning that were consistent with their rating of important conditions for online foreign language learning.

Opportunities for Interaction

The emphasis on opportunities to interact with the instructor and other classmates was reflected in their responses in the follow-up email “interview”. During the interview, most of the 14 students regarded “direct correction” and help from the instructor, and “having someone (‘friends’, ‘fellow online classmates’) to talk to about certain aspects of the course” and “help each other” as crucial to their online learning experience. For instance, one student commented: “It just helps to have someone else to talk to once in a while or go over assignments with.”

Furthermore, when asked about what areas they wanted their online foreign language courses to improve, there was quite a long list on the wish for enhanced interaction either with the instructor or with the fellow classmates (around 33% of the survey respondents). And a few more were about lack of support in pronunciation and clarity in the instructions and assignments (10%), which could actually be remediated

¹⁹ When comparing the rating of crucial factors to online foreign language learning from the students in the online Chinese course (who were given a lot of opportunities for interaction and collaboration) with that from the students in the other foreign language courses (who were not given chances for such activities), it was found that the students from the online Chinese course rated opportunities to interact with other classmates and to collaborate on projects and the sense of community in which learners support and help each other as more important than students from the other courses (5.60 vs. 4.47; 5.73 vs. 4.60 and 6.27 vs. 5.03).

through more interaction with instructors or classmates. A lot of the students interviewed stressed the importance of speaking in online language classes, as elaborated in this student's comment:

"The main difficulty is in practicing speech. It takes more effort to practice speaking in French when you don't have a typical classroom atmosphere that forces you to speak on a daily basis. Normally, one spends a lot of time talking in a language class, if only to go over homework problems. Online doesn't offer this same opportunity... It's easy to complete the assignments, but to practice speaking is a vital but often ignored part of learning a language online."

Then why was interaction regarded so important in their online foreign language learning experience and what role could interaction possibly play in students' online foreign language learning experience?

Interaction with other classmates. Among the interview with the students, all of the online Chinese students 'interviewed' through follow-up emails ($n = 7$) who had relatively more opportunities to interact with classmates unanimously agreed that interaction was a very important component of their online language learning experience. However, the students interviewed from other classes ($n = 7$) split in their opinion on the importance of interaction with the classmates. Two of them had interacted with the classmates who were taking the same online course at the same hour and thought favorably about interaction. The rest five had little interaction with their classmates either online or face-to-face, and four of them regarded interaction as not very important. In all, it seems that, among the students interviewed, the students who had had the chance to interact with other classmates, either online or face-to-face, all regarded interaction as an important part of their online language learning experience.

The wish for more interaction with classmates was also reflected in the students' responses to the survey question "what about the course they did not like and wanted it to

be changed.” Around 20% of the students in the other classes explicitly expressed wishes for more interaction with other students. Students commented: “I don’t like how we are kind of isolated from other students.” “I feel really isolated, and that doesn’t help me learn as well. I need to be able to interact with others...even if I don’t know them.” “i dont like it because it hard to me and i cant get no help from nobody.” “The only thing I think this course could improve on, is the social aspect. Maybe we could talk to other students on MVHS who are taking the same course. This way we could talk to other kids our age, and help each other.”

Then what perceived functions did interaction with classmates serve in students’ online foreign language learning experience? First, a major function of interacting with classmates might be to build rapport among the classmates. The students reported that interaction with other classmates enabled them to relate to each other and seek moral support and encouragement from each other: “I LOVE being able to talk with the other students all throughout Michigan who are learning the same language that I am learning;” “it allows us to relate with the others who are also completing the course”; “You start to understand the difficulties other students go through”; “that way I know how other kids feel about the class”; “I feel that I am not the only one who might be excited about a new assignment, or stressing about the upcoming quiz. It provides people who can empathize with what I am learning”.

Second, interacting with classmate might also serve the function as cognitive device for learning, helping them to seek learning techniques from each other and better monitoring learning. As some students pointed out, “it was very helpful to discuss the information with them, and learn their study techniques;” “it’s easy to tell when you fall behind;” “I can learn from others’ mistakes and correct mine and vice versa.”

Third, another function interacting with classmates might serve was to enable learners to help each other through the learning process: “they can help me figure things out”; “We can ask one another questions and give each other advice”

Last but not the least, interacting with classmates gave learners the chance to practice language with each other: “Being the only one from my school to be taking Chinese was difficult because I had nobody to talk to on a day to day basis about the material in the course – it would be nice to have somebody to practice with who is also learning and at the same stage as I’m at”; “It’s important because a chance to practice language, more proficiency, use language effectively;” “discussing assignments, asking questions, and practicing sentence structure.”

Interaction with the instructor. All the students “interviewed” regarded interacting with the instructor as extremely important. And in their survey responses on areas in which their online course needed improvement, more than 15% expressed explicitly that they wished for more interaction and easier interaction with the instructors.

Media of interaction. The “interview” and survey responses also indicated that the media via which interaction was conducted was very important. When explaining why he did not think of interaction as important, a student said: “I don’t think it’s really important in an online language course because of the trouble with communicating through email.” Similar complaints about the inconvenience of media of interaction echoed among the students: “It’s difficult and time consuming to use email to communicate when I have questions It’s annoying to have to type everything into an email, so I usually just don’t ask questions anymore;” “I wish that we had a better way to get a hold of our teacher like immediate responses instead of having to wait a day or longer for an email response.”

Need for Edutainment

Moreover, students also valued the “fun” and “engaging” component of learning, but at the same time the learning materials also needed to be “challenging”. Variability of input and language practice opportunities was also considered important, but at the same time they stressed the importance of support for and enhancement of the input. Around 8% of the survey respondents complained about the lack of comprehension aid (like word lists) in the course materials, as reflected in comments like “It goes through words too fast, I cant understand it. I started out too hard instead of keeping a steady pace. I couldn’t keep up so I gave up.”

Need for Focus-on-Forms

The tension between focus-on-form²⁰ and focus-on-forms²¹ was also salient through students’ survey and “interview” responses. Around 7% of the survey respondents explicitly requested more systematic and explicit grammar instructions, as explicated in students’ responses: “I wish we were taught grammar and conjugation rules. I understand that the class wants to be ‘interesting’ so we simply listen to stories with the goal of ‘picking up’ the rules as we go, however, this does not work. I wish were taught rules of language.” During the email “interview”, a French student commented:

“I don’t know how much this is a failure of the course or just my comfort in learning a language, but I’m used to a much greater focus on learning the rules of grammar and then practicing them directly. This course is much more scattered which is often particularly effective for small children learning a language but it is difficult to know whether my grammar is correct or not when I’m completing my assignments because we don’t always learn the rules before being

²⁰ Focus-on-form refers to directing learners’ attention briefly shifted to linguistic code features, in context, when students experience problems as they work on communicative tasks. Thus the linguistic features were worked on in context in a sequence determined by their own internal syllabuses, current processing capacity (Long, 1997)

²¹ Focus-on-forms refer to discrete-point grammar teaching, where learners spent a block of time working on isolated structures in a sequence predetermined externally (Long, 1997)

expected to use them ... When assignments are returned, they are corrected, but grammar rules are not explained. I learn grammar largely by guessing and comparing it to the rules I'm familiar with in Spanish/English. Largely, I like the format that this course follows but I think a more focused look at grammar would help greatly."

This comment is pertinent to this big push for task-based instruction and focus-on-form in online foreign language learning (Doughty & Long, 2003). For foreign language learning, perhaps the integration of both focus-on-form and focus-on-forms might be the way to go. As Klapper & Rees (2003) pointed out through their four-year longitudinal study on a German program that explicit and synthetic language instruction is still substantially needed "in the specific context of foreign language teaching in a majority L1 setting", and that "foreign languages are taught more efficiently and effectively when meaning-based classroom interaction in L2 is linked to FonFs, rather than (just) FonF instruction" (p. 309). This might be particularly true for online foreign language learning since moments for FonF per se are quite constrained in this learning environment due to the severely limited opportunities for interaction among the learners and with the instructor in most online language courses. And for the online learning of foreign languages that lack social resources, like Chinese, this matter might be even worse since even less meaning-based interaction is expected to happen in the learners' immediate social surroundings and their language learning might solely rely on the short period of exposure to the online courseware and limited interaction with the instructor. Thus, the courseware and the instructors might serve the language learners better by striking a balance between focus-on-form and focus-on-forms, and it might be advisable for the instructors to provide some emergent but synthetic linguistic explanations (focus-on-forms) either during virtual meetings or via detailed feedback on assignments, and at the same time increase the opportunities for focus-on-form through engaging learners in meaning-based interactions

with fellow learners. If neither of them provides some emergent but systematic explanations on the grammar and word usage, the feeling of uncertain and unsure about their grasp of the language as the student expressed above might be unavoidable.

Summary

Students' perception on crucial factors to online foreign language learning corroborated with the results from previous quantitative analyses: students valued the contribution of effective course communication to their online language learning. They valued the opportunities to interact with the instructor and the classmates not only for enhanced social presence but also for language learning purposes.

CHAPTER 6

THE ONLINE CHINESE COURSE

The online Chinese course was designed to put heavy emphasis on engaging students in interaction with the instructor through weekly virtual meetings and in collaboration with other students during the weekly virtual meetings and postings in the discussion board forums. This chapter presents students' overall reaction to this course, focuses on the problems emerged and the lessons learned on the implementation of the proposed framework in a beginner-level online foreign language course, and thus identifies issues of note for future online foreign language course design and implementation. The data analyzed in this section mainly came from student self-reflection blog, student discussion board postings, email "interviews" with students and student responses in the anonymous end-of-semester class survey.

Student Background

The online Chinese course had 29 students²² to start with. There were four students who dropped out after the first week and one student dropped out after the second week. Thus 24 students studied in this course. Out of the 24 students, one student stopped studying at the 6th week and one student stopped studying at the 12th week. As a result, 22 out of 29 students stayed in the course from the beginning to the end.

The students taken this course ranged from grade 9 to grade 12, with an average of 10.88. Most of them had taken other foreign languages before or were currently taking another foreign language course. The majority of them had never taken online courses before. Their motivation for taking this course varied quite a lot, representing a wide

²² For one student, the mentor registered for him and he never knew he was in the class until the instructor emailed him about that. Thus he did not participate in any of the course and was not considered as a student of the course.

range of motivation ranging from strengthening resumes to interest in the Asian language and culture.

Students' Overall Perception of the Course

The student retention rate was 76%²³. Among the five students who dropped out of the course within the first two weeks, one dropped out because of missing virtual meetings and coursework due to her trip to China, another dropped out because of the technical problems. For the two who did not persist to the end, they were both from the 12th grade.

Overall Satisfaction with the Course

All of the 16 students, who submitted entries of summary reflections on the semester's learning experience, expressed their enjoyment of the course. Comments like "Overall, this was one of my favorite classes this semester;" "I have had awesome fun in this course and I hope it will be here in the Fall of next year;" and "I absolutely loved it and have every intention of keeping it up over the summer" abounded. Among the 19 students who filled out the end-of-semester class survey, 84% of the students liked the learning activities in the course, 94% of the students agreed that the course was well organized and easy to follow, and 84% of the students thought the assignment instructions were very clear.

The course also helped to inspire and maintain students' interest in Chinese. For instance, one student noted: "Most importantly, I think that being exposed to this course has really made me want to learn more and perhaps visit China as well." Another said: "I

²³ Note this retention rate was calculated through taking the ratio of students who persisted to the end over all the students who were originally in the student roster. Since five drop-outs happened during the first two weeks, if we count only those who dropped out in the middle of the semester as 'real' drop-outs, then the retention rate would be 92%.

feel like I've learned a lot in this course and though I won't be taking any more XX Virtual courses because I'll be in college, I do want to continue learning Chinese through online study.” Furthermore, students expressed the wish to continue the learning experience: 10 out of the 16²⁴ students who submitted the summary reflection blog planned to continue the course next semester.

Perceived Learning through the Course

Students perceived positively about what they had learned about Chinese through the class. Among the 19 students who filled out the end-of-semester survey, 69% agreed that they learned about the same as or better than a traditional high school class, and 85% regarded this online course as about the same challenging as or more academically challenging compared to other course. In their self-reflection summary, students commented: “Wow, I've learned so much from this course, mainly about the Chinese language, and even a little about the culture;” “I learned much more than I learn in a semester of my spanish class;” and “I learned a lot of different things that I didn’t know. The culture was really interesting, and there were many things that I didn’t know.”

In addition, students also reported acquiring some online learning skills. One student reflected on group management skills: “If we do any kind of group project next year, I know that I need to make sure that my group is much more organized from the start.” Another student reflected on what the class taught her about herself: “Also I think this class helped me learn a lot about myself... my work habits, people skills, time management, and so much more.” Several students commented that the class helped them to realize the importance of time management issue: “... and this class has made me realize how important time management is.... More than anything else, I have learned

²⁴ 4 other students could not continue the course due to entering college or moving out of the country.

that, when taking an online course, you must take the initiative in order to learn efficiently;" "I did, however, start to slack toward the end ... quite a lot. So that's definitely one thing I'll need to improve on. Starting college this coming fall, I'll really need to practice my time management skills." In all, the majority of the students' overall perception of the course was quite positive.

Issues of Implementing the Proposed Design Framework

Discussion about the problems encountered in this class will proceed in the sequence of the issues arisen in the implementation of the various components of this course.

E-Textbook

Generally speaking, most students liked this program, thought of it as "nifty" and felt much to learn in this program. However, quite a number of students encountered a series of technical problems with this program. This e-textbook used some cutting-edge learning tools, like speech-recognition. Though cutting-edge they may be, those tools were also not mature enough to secure the stability of their performance. Hence students reported great frustration with them. Those technical problems might have had devastating effects on students' perception of the program. One student had constantly complained about the technical problems in her self-reflection blogs, and in the summary blog she commented:

"I have to admit, there were frustrating times during the class, as well. Especially first, the problems with the Chengo Chinese program really got on my nerves. After a while, I learned how to work beyond the glitches. Probably my least favorite part of the class was actually completing the Chinese episodes. I can't even explain why there were so trying; I just dreaded doing the episode."

Thus, it is important to ensure the stability of the e-textbook through selecting the more mature technologies and make sure that technical support is easily accessible since in online foreign language courses, the majority, if not all, of a student's study time revolves around the e-textbook.

Furthermore, students' comments also suggested the importance of making close connection between the e-textbook and the other course activities and, more importantly, making this connection explicit to the students so that they could see e-textbook and other class activities as coherent and perceive each of them as meaningful. One student remarked at the end of the semester:

"Also, I think that with the course itself, the Chengo Chinese portion could have been improved upon. Besides the vocabulary, none of the material learned in the program was really implemented. Due to this, I think that I was often rather bored with the Chengo Chinese program itself."

Although in this online course, the instructor spent quite a portion of time practicing the vocabulary encountered in the e-textbook during virtual meetings, the culture discussion during virtual meetings also revolved around the theme of each episode in Chengo Chinese, and the problem-solving project and the group writing project aimed at encouraging students to use what they learned about the vocabularies, phrases and culture in Chengo Chinese in contexts, the student still felt it lack of being reinforced. This seems to caution us that the coherency in course design does not necessary lead to perceived coherency on the students' side, and it is the perceived coherency that determines whether the students would perceive each course component as meaningful and connected and actively pursue each of them. Thus online instructors might fare well to make sure the students see the coherency and link between different components of the course since

without seeing the purposes of each activity and the link among the activities, the students may simply lose interest in the activity itself.

Virtual Meeting Sessions

Despite the overall positive reactions to virtual meeting sessions in the Chinese course, several issues arose in the implementation of the virtual meeting sessions.

Scheduling was a major issue in the implementation of virtual meetings. With the busy schedule of the high school students, it was quite a task to find common meeting times even for a small group of kids. Some schools assigned a certain time slot for students to work on this online course during the school day, which would be the most convenient time slots for most students. However, the time slots for the students were different from each other, which made it hard to form groups during the time slots that were most convenient to the students. The instructor expressed constant frustration in the first two weeks on the scheduling issue, and even with quite an effort in coordinating the meeting times, several students still ended up not being able to fitting their schedule very well with their classmates and the instructor. It turned out that most of the virtual meetings were conducted after school between 4 pm to 7 pm. Some students commented: “The only ways in which these group sessions are not positive are the times in which they are offered does not always compliment my schedule;” and “I was able to attend them all until softball season started in April. Since then, I have not been able to attend a Monday since.”

A related issue is the time demand on the instructor. For this online course, the instructor spent an average of 10 hours each week. Comparing the time she spent with the time another instructor spent on an equivalent course (French 1A) with 30 students, the difference was 2 hours. So with weekly virtual meetings incorporated into an online

language course, it may demand more time from the instructor. Although the virtual meetings required extra time of the instructor, at the same it reduced the work load of the instructor to some extent in the sense that the virtual meetings helped address a lot of questions and concerns from the students which may help to reduce the frequency of email Q&A. However, the case of online Chinese course is peculiar in the sense that the students were deliberately selected from different locations of the state, which made the student population quite dispersed and might have caused more scheduling problems than would be expected from other online foreign language courses, where we might find more students coming from the same school and sharing similar schedules. In another word, for the other online foreign language courses, the instructors might be able to provide fewer virtual meetings with a larger group of students, which may offset the extra time demands virtual meetings imposed on instructors.

The firewall issue revolving the downloading of conferencing software on local school computer caused a lot of problems, frustrations and confusions at the beginning weeks of the course. Thus some sort of orientation needs to be arranged to troubleshoot the technical problems before even starting incorporating the virtual meetings in the course so that the course schedule would not be delayed. However, this would require a lot of communication between the local schools and the virtual high school help desk, and the support from the school districts, which would be extremely hard since it would be hard to solicit help and priority from the schools and the districts with some many things going on at the beginning of the semester. It might be more advisable and effective to choose a simple-to-use conferencing tool, preferably one without requirement of downloading, if possible. Furthermore, the big file size of the class recordings made it not very student-friendly and hence greatly inhibited the realization of its potential role in the

course. Thus, to ensure the contribution of this course component, considerations should be given to the file size when providing recorded virtual meetings to the students.

Group Problem Solving Project

One issue that arose in group problem solving project was the feasibility of eliciting negotiation of meaning among absolute beginners in online course, since as elaborated previously absolutely no negotiation of meaning occurred during the group problem-solving project throughout the semester. Is it possible that the expectation of using this type of project to elicit negotiation of meaning is too idealistic, as one student pointed out in his/her response: “The wizard of Oz project just was too big a task for people who are just learning the language”? Although there did exist second language learning literature on negotiation of meaning at the basic level, this basic level is in no way equivalent to the level of the students in this class since most of this literature investigated ESL situation and the basic-level participants in those studies actually had at least several years of experience learning the language already. Thus, it might be true that for the ‘true’ beginners of a foreign language, negotiation of meaning might not be realistic to pursue, at least not in the first several months of learning the language. As Rosell-Aguilar (2005) pointed out, “beginners can only produce very limited utterances, especially at the beginning of their studies, so they require a large number of stimuli and more structured activities to extract the little language they can produce.” The limited linguistic capacities and the structured activities make it hard to elicit negotiation of meaning among the learners themselves during the course. Furthermore, audio conferencing might have made the task even more daunting. Researchers have argued that negotiation of meaning through audio conferencing might not fit absolute beginners, like the students in this online Chinese course, and may be best suited to “learners of at least

intermediate competence in the target language” (Kötter, 2001, p. 347) since “synchronous CMC places a higher cognitive load on the learner, and as such is better suited to higher proficiency learners” (Stockwell, 2004).

That being said, it needs to be born in mind that due to technical and logistic issues, the problem solving project was only able to proceed through two episodes, which renders the findings from this study too weak to address the issue of the feasibility of using tasks to elicit negotiation of meaning among the absolute beginners.

Group Writing Project

The group writing project imposed heavy management requirements on the students. Students found it hard to coordinate their work and collaborate in asynchronous manner. Also, this project was not tightly structured. The students were told that this was a semester-long project and they needed to work with people in their groups to come up with a final writing about China with around 60% of the words in Chinese. As a result, students remained indolent for quite a few weeks and only started to communicate with each other on this project after the instructor urged them to do so. In most groups, one or two students took the initiatives to organize the postings and posted more often than the rest of the group members. However, the leadership style of this person was important to the overall result of the online collaboration. In one group, the girl who took the leadership role had a different opinion on the storyline from another girl in the group, and she went to extreme and virtually banished the girl from the group, resulting in the girl opting out of the group and doing the project alone. Whereas in another group, two group members were quite active in contributing to the conversation and the flow of the group communication was quite smooth and demographic. The group members were on good

terms with each other and the group ended their group project with good feelings about each other and with a sense of accomplishment.

The loose structure of this project might have led to the procrastination among the students and caused extra layer of difficulty to the management of the project. It might be advisable to introduce more structure into the project, as one student suggested “I also feel as though the group writing project needed a little more structure. Such as, a due date for the rough draft, an approximate date to start translating, etc.” The pure asynchronous fashion of the project and the short duration during which they were asked to work on the project made it hard for students to collaborate in the real sense. This was reflected in one student’s response to her teammate’s suggestion for meeting to discuss about the project: “.... Anyway, for meeting times. Tuesday’s are always out for me. Sorry ‘bout that. Any other day would be fine. How are we going to get together? Hmmm... like you said, XX, we can’t exactly meet for coffee because Corey lives all the way up in the UP!!! (Never been there, though!) Can we use that Team Speak thing? I don’t know if we can.” Thus, it might be viable to give students one week to construct and post project ideas asynchronously on the discussion board, contribute a portion of next week’s virtual meeting for students to deciding on the plot and storyline, and then give students half of the semester to work asynchronously on coming up with the English versions as the students preferred. But for the next half of the semester, they should be required to work together on the virtual meeting sessions to convert their pieces into Chinese together under the guidance of the instructor. In this combined synchronously- and asynchronously-mediated fashion, group writing project would not lose its original intention of stimulating collaborative learning of the language and would possibly avoid most of the problems listed above.

Discussion Board Postings

The discussion board postings were obsessed with the problem of few initiative postings from students and few responses to each other's postings. Weekly self-reflection postings were designed for two purposes: to encourage learners to actively reflect on their learning experience as a way and to create the opportunities for learners to share learning strategies and to relate to each other. However, it turned out that students seldom responded to each other's postings even in the case where questions were raised. It might have been caused by the fact that the instructor started to reply to some of the questions in the postings at the end of each week in case that the students might feel their blogs lacked audience and their problems were not helped, and that this monologue fashion might wear out their interest in this activity. But the fact of the instructor taking the initiative to answer the questions might have made the students think that they were not responsible for answering the questions raised. Thus, it is always tricky as to how much instructor moderation is desirable: on the one hand, we want to encourage students to share feelings with each other and elicit help from each other; but on the other hand, we do not want to let students down with the lack of response to their questions and teacher presence is also need to move social presence towards cognitive presence to ensure high quality of interaction as suggested by Garrison & Cleveland-Innes (2005).

The intention for the other discussion forums in the discussion board was mainly for students to raise and answer each other's question on Chinese language and culture. However, quite a few 'no question this week' postings appeared and few postings with questions were responded to, which seems to suggest that making discussion board postings a weekly assignment might have led the students away from its intended purposes in supporting each other's learning. Discussion board postings might serve

better as an optional thing in which students are encouraged to share their problems and help each other, rather than as an obligatory assignment. Learning community might fare well as fostered but not enforced.

In all, discussion board postings fulfilled, to some extent, the social part of the learning community, i.e., to relate to each other, help each other with concerns and encourage each other, but they failed to realize the intellectual part of the learning community, i.e., to help each other with language and culture problems and to share learning resources with each other.

Summary

Table 10 summarizes the functions of each course component perceived by the students as extracted from students' comments in end-of-semester class survey.

Table 10

Student Perception of Chinese Course Components

Functions		Course Component				
		Virtual meetings (e-textbook part)	Problem solving project	Group writing project	Self reflection blog	Other discussion board postings
Language learning	Pronunciation	6				
	Sentence structure	1	1	4		
	Vocabulary		3	2		
	Variety of input		2			
Interaction with instructor		6				
Interaction with classmates	Work together			3		
	Empathy	6		4		5
	Help each other			1	3	7
	Share problems				3	
Immediate feedback		2				
Fun, creative, challenging, novelty			5	7		
Monitoring learning					6	1
Venting stress and concerns					6	

Note. Numbers in the table shows the number of students who had the opinion

From this table, we can see that different components of the course were perceived to serve different functions. Virtual meetings, problem-solving project and group writing project were viewed as more of a help in learning different components of the language, enhanced interaction with the instructor and connection with the other classmates. Due to the way the problem-solving project was carried out in this course, students did not perceive it as an enhancement of connection and opportunity for working with other classmates. Problem-solving and group writing projects were perceived as the fun and creative parts of the course. Self-reflection blog was acknowledged mainly for its function to help students regulate and monitor both the emotional and cognitive aspects of learning. The other discussion board postings served more of the function of connecting and helping with each other.

Furthermore, it could be seen that the term interacting with other classmates actually embodied a variety of functions, and different interaction means and different components of the course actually served different functions of interacting with other classmates. This corroborated with Zhao et al.'s (2005) meta-analysis finding that a combination of synchronous and asynchronous interaction format conduces more to greater distance learning outcome. Thus, it makes sense to incorporate different interaction media and activities to cover this multi-faceted component of online learning. This need for interaction diversity was best illustrated in a student's interview response:

"In my class we get the opportunity to talk online during class (the one hour session per week) to discuss assignments. And we talk between classes on either the discussion board or AIM. We do interact a lot and have become friends, just like a regular classroom... The virtual meetings every week are great to get "human" help on issues that you are not able to troubleshoot by yourself and with the software ... The discussion board posting are very helpful in learning more about my classmates. By reading the discussion board I can see how my classmates are doing on the

assignment, and any issues they seem to have ... AIM is an all hours help station, whenever I have a question on something I can bring it up and usually someone is available to help, or we can at least trouble shoot together. Usually the conversation starts off with a question about the current assignment or what the class is doing then after it is answered we just-chat."

The analyses of the online Chinese course revealed that enhanced interaction with the instructor and classmates through virtual meetings was a highly valued component in this course, and its successful implementation relies a lot on technical support, especially in terms of school firewall issues. Online group collaboration was doable but may need the support of both the asynchronous and synchronous communication means to relieve the difficulty of coordination and misunderstanding within a team, and make online group collaboration more convenient and efficient. Learning community through discussion board postings was not easy to foster: simply providing discussion forums might not ensure the formation of learning community, especially the realization of its learning functions.

CHAPTER 7

FINDINGS AND DISCUSSIONS

Summary and Discussion of the Findings

This study attempted to test the applicability and utility of the proposed online foreign language learning framework through both qualitative and quantitative analyses, identifying some factors that were perceived to be important for online foreign language learning and revealing some problems that might emerge when implementing this framework. This section provides a summary of the research findings and discussions in reference to the design framework.

Course Communication

Amount of interaction. The regression analyses of the online foreign language courses found that the amount of interaction, with the instructor and with fellow classmates, was positively associated with students' overall satisfaction with the course and reduced feelings of isolation. This finding corroborates with Zhao et al.'s (2005) and Bernard et al.'s (2004) meta-analyses results. And the correlation analyses on the online Chinese course showed that amount of interaction was also positively associated with students' final grades.

Furthermore, the in-depth analyses of the online Chinese course and the follow-up email "interview" and survey responses from students in those online foreign language courses showed that the students valued the presence of a 'live' instructor in online foreign language courses. In effect, Zhao et al.'s (2005) meta-analysis has found the positive impact of the presence of 'live' instructors on the effectiveness of distance courses. 'Live' instructors might be particularly crucial to and much needed in online foreign language courses because, in addition to all the claimed essential roles they play

in distance education in general, their ‘live’ presence might as well be needed also for some specific language learning purposes: 1) to meet online language learners’ need to practice and refine their speaking skills and pronunciations, which is important to language learning but kind of downplayed in online foreign language learning; 2) to provide immediate feedback; 3) to facilitate negotiation of meaning and provide emergent linguistic instructions; 4) to act as a major or even sole, in the case of language like Chinese, social resource for foreign language learners. From the online Chinese course, we could see that the addition of one-hour virtual meeting with the instructor could change students’ learning experience, as elaborated in one student’s interview response: “Unlike my French courses, this Chinese course has been so much easier because I am able to get direct answers and finally speak something correctly.”

However, does this boosting effect increase in proportion to the increase of ‘live’ teacher presence? On the one hand, we want to support students’ learning with ‘live’ teacher presence; and on the other hand, we do not want to sacrifice the “big window of time” to “think things out,” and the opportunities to “learn at my own space” offered by distance education. At the same time, the nature of distance education also requires us to strike a balance between the economic and time considerations and the pedagogical considerations. Thus, it is much valuable and needed to look into the issue of optimal level of ‘live’ teacher presence in online foreign language learning, both time-wise, economy-wise and pedagogy-wise. Furthermore, this optimal level might as well vary for different foreign language proficiency levels since students of different levels might need different levels of instructor facilitation of negotiation of meaning and emergent linguistic instruction, and different levels of pronunciation support, which is another important issue that deserves some attention.

The “interview” and survey responses suggested that social resources available to and used by the students during their learning experience (interaction with students in the school who were taking the same online course and with friends and family members who speak the language) might be a possible factor to remediate the need for interaction with fellow classmates, although this was not confirmed in the regression analysis. Students who have more social resources available to support their language learning might have less demand on the course to provide opportunities to interact with fellow classmates, as reflected in a French 1A student response: “I don’t utilize these opportunities purely because it’s not really necessary. I find it easy to learn without communicating with the other students in the course as I can just go home and talk to my mom in French.” A check into the correlation of student satisfaction with the course and reduced feeling of isolation with social resource yielded that social resource possible was significantly correlated with these two measures ($r = 0.33, p < 0.001$; and $r = 0.27, p < 0.01$). It might be interesting to look at how availability and access to social resources (fellow students in the same school, friends and family members who can speak the language) affect online foreign language students’ needs for interacting with fellow classmates, an answer to this would have great implication to the course interaction design for foreign language courses that vary in the amount of students who have easy access to social resources, e.g., the students who come from the same school and have opportunities to interact with each other face-to-face.

Quality of interaction (negotiation of meaning and culture understanding). The online Chinese course failed to elicit negotiation of meaning for those absolute beginners with those tasks. This finding seems to be in alignment with some arguments for the unfitness between negotiation of meaning and basic-level students, especially in the audio

conferencing context (Kötter, 2001; Stockwell, 2004). However, it might not necessarily be the case that basic-level language learners are unfit to engage in negotiation of meaning, but rather be the case that the elicitation tasks designed were not effective to elicit negotiation of meaning. It might be true that careful design of communication tasks that incorporate “a larger number of stimuli and more structured activities” would help, as suggested by Rosell-Aguilar (2005), or maybe referring students to the place in the e-textbook where the target linguistic forms are used and give them some time to think over and plan would help (Kötter, 2001; Hampel & Hauck, 2004). There is not much literature and empirical evidence on whether negotiation of meaning is a desirable goal to shoot for at the absolute beginning level and on how to best facilitate negotiation of meaning in terms of task design and instructor moderation at the absolute beginner level in audio conferencing context. However, some insight into this question is crucial especially when negotiation of meaning and task-based instruction is in vogue in second language education and when more and more online foreign language courses are being constructed for learners of different proficiency levels.

Quality of interaction (timely quality feedback and effective communication of assignment instructions and expectations). The regression analyses showed that clarity of assignment instructions and course expectations, timeliness and richness of feedback, availability of technical and mentor support were associated with students’ positive perception of their online foreign language courses. Students’ rating of crucial factors to online foreign language learning also yielded similar finding. The online Chinese course students’ perception of their course suggested that these components could potentially be enhanced or compensated for through more interaction with the instructors and classmates both synchronously and asynchronously.

Media of interaction. This study found that interaction with the instructor and interaction with fellow classmates were not treated as generic terms by the learners, each of them serving different sets of functions learning-wise, motivation-wise and course communication-wise. It was further found that different communication media and different communication activities served different functions of these two types of interactions. Thus technology diversity might be required to serve this interaction diversity, both synchronous and asynchronous communication means might be needed to better serve the interaction needs in online foreign language courses. However, what communication means and activities would better serve what interaction need is a crucial question to answer since an online language learning ecology should be diverse but at the same time should be efficient, especially considering the time constraints both on the students' and on the instructor's side and the importance of keeping things simple in an online learning environment.

Course Structure

Task-based instruction. This study found that task-based instruction had its appeal to the online foreign language learners and could work in online foreign language learning. The variability and comprehensiveness of the course material and learning activities were regarded valuable. Students valued that materials be presented in various contexts and forms and cover a wide range of language learning skills including listening, reading, speaking, translating and creative writing. Furthermore, they preferred the materials and activities be presented in a fun, engaging and enjoyable manner. At the same time they also wanted the materials and activities to be challenging enough to engage them in thinking and give them a sense of victory.

This study also found that the coherency and interrelatedness of the tasks were crucial since it determines whether students would find each task meaningful and be willing to invest their time in it, as explicated in the case of the student who lost interest in studying the Chengo Chinese episodes and in the frequent occurrence of “no new questions” in the Chengo Chinese discussion board postings. Furthermore, the study also found that coherency and interrelatedness of the tasks in designer’s and instructor’s eyes did not naturally carry across to the coherency and interrelatedness of the tasks in the students’ eyes. Thus efforts need to be taken to make sure that the students see the connectedness and meaning of each task at the right beginning.

Focus on form. In this study, some students complained about online language learning via focus on form alone, and they felt uncertain and unsure about their understanding of the language. This finding cast some doubt on the feasibility of focus on form alone in the context of online foreign language learning, where students had little chance to engage in massive meaningful communication in the target language outside their foreign language classes (Klapper & Rees, 2003). The situation might be exacerbated in the case where there was little synchronous interaction between the instructor and the students but rather learning depended totally on the focus-on-form embedded in the e-textbook and learning activities, as well as the email feedback from the instructor. Online foreign language courses might not afford the working conditions for focus-on-form: the nature of being foreign language learning and the limited volume of the e-textbook episodes inhibits the possibility of facilitating massive planned focus-on-form; and the lack of constant and immediate availability of instructor and fellow classmates does not lend themselves well to massive incidental focus-on-form. Thus in online foreign language learning, planned and incidental focus on form plus emergent but

systematic linguistic explanations might be the viable way to go in order to avoid the feeling of confusion and uncertainty among the learners. However, emergent but systematic focus on forms might not work well through email correspondences between the instructor and the students since it is unreasonable and uneconomical to expect the instructors to provide detailed explanations to every student based on their assignments. Some sort of synchronous meetings between the instructor and the students might fulfill this task more efficiently and effectively.

Activities to strengthen learning management skills. The study showed that online students and instructors did regard such activities as crucial to online foreign language learning, which suggests that certain measures to foster such skills might be needed as suggested by researchers (Bernard et al., 2004; Curtis et al., 1999; Hurds et al., 2001). The online Chinese course adopted self-reflection blog as one way to facilitate learning management skill building. Students did take this opportunity to monitor their online language learning cognitively and emotionally through venting frustrations and concerns about the content and the technical problems, which was considered as important for students in a distance environment (Hara & Kling, 2000), and encouraging themselves to continue working.

However, there was little sign of students using this opportunity to actively reflect on and adjust their learning strategies. It might be because the instruction for this activity was too abstract: students were simply asked to reflect on their learning process during the previous week and expressed problems and concerns. Too abstract and unstructured self-reflection blog might have made students tend to provide simple and superficial entries and hard to find a point to focus on, as some students complained: “(e)very entry started to sound the same.” Thus, it might be possible that students might not have the

ability to improve learning skills through random reflection on past week, but rather need to be guided and gradually led to increased learning skills and strategies through some well-designed specific issues for them to reflect on. For instance, if the particular week focuses on introducing Chinese pinyin, then the instructor may ask the students to reflect on the problems they encountered in learning pinyin and any strategies they can think of to solve those problems; or the instructor may ask the students to reflect on their strategies in learning the vocabulary and evaluate those strategies, and so on.

Furthermore, this study failed to observe much evidence in which students helped each other to better manage their online language learning. Similar phenomenon was also observed by Dickey (2004), who found that small-group blog might work better than individual blog towards building a community climate. Although his study focused on using group blog to reduce feeling of isolation, it is possible that probably small-group reflection blog, in which a group of students are asked to reflect on their individual learning experience and problems and at the same time help each other with their questions or problems, might work better than individual reflection blog in strengthening students' learning management skills as well. Small-group format makes sense because it makes reading and commenting on each other individual reflection entries a more doable task than whole-class format employed in the online Chinese course. Notwithstanding, this study did suggest some value of blog in terms of helping students to monitor their learning process, but at the same time also revealed its limitations in fulfilling the task of strengthening students' online learning skills. Thus, it is important to investigate effective and efficient ways of conducting reflection blogs to strengthen students' online learning skills.

Co-constructing learning experience. The importance of learning communities was not reflected in students' perception of important factors in online foreign language learning. The online Chinese course attempted to build learning communities through discussion board postings, and it turned out that social function of learning communities, in terms of helping students to relate to each other and empathize with each other, could be achieved through those postings, whereas the intellectual function of the learning communities, in terms of sharing learning resources and helping each other with language learning, failed to materialize. It might be because those students were absolute beginners of Chinese and there was not much difference in the students' proficiency levels to enable them to engage in peer tutoring. The relationship between peer feedback and tutoring and students' proficiency level was another issue that may deserve some attention.

The online Chinese course also showed that collaboration online over some projects was a doable task in online foreign language classes, but it might need to be more structured and supported with various interaction means. The problems encountered in the collaborative writing project reminded us that a lot of factors might need to be considered and carefully investigated to safeguard the quality of online collaborative activities, which include the instructor moderation level and type, what type of language learning activities would work best as collaborative activities online, and different ways of organizing and facilitating the group activities to make them flow smoothly and realize its collaborative nature in the online environment.

Student Characteristics and Contextual Factors

This study failed to find any student characteristics, like self-regulatory skills and technology skills, that were claimed to be predictive of the success of distance learning in general (Roblyer & Marshall, 2003; Ferdig et al., 2005) as significant predictors of

student positive perception of their online learning experience. The discrepancy might be because of the different measures of learning outcome: the two studies both looked at the relationship between student characteristics and the likelihood of whether the students could pass the distance course, whereas the outcome measured in this study was positive perception of the course and feeling of isolation.

However, the study did find that students' attitudes and confidence about online foreign language learning were predictive of their satisfaction with the course, and students' motivation for taking the online foreign language course was also predictive of their satisfaction with the course. Anecdotal evidence from this study suggested that social resources of the language and culture that are available in one's immediate social environment might be pertinent to one's perception of their online foreign language learning experience.

Limitations

The study had a low response rate, which might make the sample not very representative and may potentially threaten the reliability of the survey responses. Furthermore, most findings in this study were based on student self-report data and anecdotal evidence. Thus the findings from this study are far from being conclusive and cautions need to be taken when interpreting the findings. Due to its exploratory nature, many issues pointed out through this study only indicated some possible trends and needed to be subjected to rigorous testing.

This study investigated factors that might affect student perception of their learning experience in various courses and the retention rate of the courses. However, it could not explore an important outcome measure, student learning outcome, due to the

incomparability of the learning outcome (course final grades) across different languages. Thus only correlation analyses were conducted on the online Chinese course alone.

Moreover, although measures were taken to make sure that the manner and the timeline in which the surveys was collected would not threaten the validity of the research findings, the relatively long period the survey responses spanned across due to their online nature might still have some undetected effects that might potentially influence the overall finding.

Due to the homogeneity of the course design and implementation of all but one of the online foreign language courses investigated in this study, only part of the course design framework could be tested through regression analysis.

Furthermore, the online Chinese course was a pilot course, and thus some of its course components (like interaction media) went through several changes as the course laid out and some of its course components (like problem-solving projects) were not given due respect to their length and portion in the course. Therefore, students' perception on those course components should be interpreted with some caution.

Implications

Findings from this study have some implications for online foreign language course design and implementation and also unravel some research issues for future research.

Implications for Online Foreign Language Course Design and Implementation

In the design of the online foreign language courseware, learning support might need to be an important consideration. Courseware should not only be fun, engaging and incorporating a lot of interactive activities, it should make sure to provide a lot of comprehension and learning aids, like glossary, speed adjustor, textual enhancement,

keeping track of where students finished last time, and so on. This may sound trivial, but is crucial to online foreign language learners. In the online learning situation, without convenient and immediate way of contacting the instructor and other classmates, students may find it hard to retain their interest in learning and the lack of those seemingly trivial aids may make them feel learning too daunting to persist in and thus simply “gave up” as one student put it. Second, when designing courseware, decisions as to what technologies to choose should be made carefully. Advanced technologies, like speech recognition, might make the courseware look very attractive. But if its performance is not very stable, it may cause unnecessary frustration and dislike among the students, just like the example of voice recognition with Chengo Chinese, in which the student became “dreaded doing the episodes.”

A successful online foreign language course might not solely rely on the courseware, since “a program can only do so much.” There needs to be a bridge between the courseware and the students. Thus the online instructors play a vital role in online foreign language courses, especially in those that apply a focus-on-form approach to language learning in their courseware. It would be advisable for the instructors to provide emergent but systematic linguistic explanations to support this language learning approach so as to reduce the feeling of uncertainty and confusion among the students. Therefore, the quality of the instructors’ feedback is extremely important.

Since students’ attitudes towards and confidence of distance foreign language learning were found to be predictive of the students’ overall satisfaction with the course, instructors might pay attention to building students’ positive attitudes from the right beginning. They may make available to their students what previous students have said about the course and their successful learning strategies to prepare those students better

for this online learning experience. The courseware may also need to start out a little bit easy to build students' confidence in their ability to take the course and then gradually increase the challenges in the course. But at the same time it is crucial for the instructors to be especially careful in making sure that the instructions are clear and students fully understand the purpose and expectations of the assignments when introducing new and challenger contents into the course, since clarity of the instructions was found to be critical to distance foreign language learning.

The instructors might need to pay more attention to creating opportunities for students to interact with each other both for social purposes and for learning purposes. Student-student social interaction might be more important than most instructors had expected. If not via other means, the instructors can at least make some discussion board forums available to the students, or encourage the students to and make it possible for students to find means to interact with each other (like the AIM example in the online Chinese course). Forum discussion may work better if not enforced but rather fostered and encouraged. When organizing collaborative work among the students, synchronous and asynchronous means might need to be combined to facilitate the process and safeguard its quality. Online study group might be another option to make good use of student interaction to facilitate learning.

Synchronous interaction between the instructors and the students might be quite important to online foreign language learning when talking about students' satisfaction with the course, reduced feeling of isolation and course retention rate. If weekly meeting is not an option, some sort of online synchronous office hour might be a good alternative since it could provide opportunities for online students to get immediate feedback, clarification on assignments, help on pronunciation and so on.

Implications for Future Research

Online foreign language learning is a broad field that encompasses a multitude of issues. Although this study suggested a possible framework to follow when designing such an online environment and identified some factors that might affect learners' perception of their online learning experience, it leaves more questions than answers for the refining and implementation of the framework. One major issue for future research is to relate the factors investigated here to student language learning outcome.

Course communication. Interaction is a topic of enormous interest in the distance learning literature. This study raised a few issues about class interaction that deserve further investigation: 1) This study showed that different types of interaction might be needed for different functions in online foreign language learning and learning activities mediated by different media might serve different functions of different types of interaction. Then a natural question follows: How to take best use media diversity to support interaction diversity and at the same time how to balance the diversity need and the economy/efficiency need in the online language learning ecology? In specific, a promising line of investigation is to look at how to combine different interaction media and activities to reach high quality of interaction; what media and activities best suit for creating social presence, teaching presence and/or cognitive presence and for facilitating the transition from social presence to cognitive presence; how to gradually shift the teaching presence from the instructor to the teaching presence from the students and so on. 2) This study explored one form of synchronous interaction between instructors and online language students. Further research is needed to explore different ways of implementing the synchronous interaction between instructors and the students, and how to strike a balance between the cost of adding extra time load on the instructor and the

benefits of bringing better learning outcome. 3) This study suggested some possible interaction between contextual factors and need for interaction, such as the possible relation between different course levels. More research endeavors are needed to subject those possible interactions to rigorous testing and explore further into other possible interaction between demand for interaction and other contextual and learner variables. 4) Negotiation of meaning is a crucial issue in second/foreign language learning, and this study questioned the applicability of negotiation of meaning in the online foreign language learning of absolute beginners through a case study. More research are needed to investigate the possibility of negotiation of meaning in absolute beginning-level online foreign language learning. If it is possible, then what types of tasks might work better to elicit and support negotiation of meaning in this context. Furthermore, we also need to investigate more into the fitness between different types of tasks and online learners at different proficiency levels, and work towards constructing taxonomy of tasks for online foreign language learning situation. 5) Previous distance education literature emphasized a lot on the timeliness of feedback and not much had been done to look into the richness of feedback provided and its effect on students' online learning experience. In the distance foreign language learning context, this is particularly important since with current emphasis on task-based instruction and focus-on-form in the second language learning field, quality of instructor feedback is crucial to alleviate learners' feeling of uncertainty and confusion in this sort of online language learning environment, especially true for the online learning module where email is the only way of interaction between the instructor and the students. It would be interesting to investigate different ways of providing feedback (e.g., pure error corrections, elaborated explanations, pointing out areas for improvement and so on) not only on students' language learning but also on

their feelings of uncertainty and their satisfaction with the amount of interaction with the instructor. Furthermore, the demands for timeliness and richness of email feedback may vary depending on the specific online learning environments. It might be possible in an online learning environment with a lot of other means of interacting with the instructor, the demand for timeliness and richness of the email feedback might be less than an online learning environment where the only means of interaction is through email.

Course structure. This study suggested the feasibility of implementing task-based instruction in online foreign language learning, but at the same time raised a lot of issues on how to make the most out of it in this particular learning context.

First, the issue of focus-on-form and focus-on-forms: this study suggested that a combination of both might be a viable way to go, but the finding was mainly based on anecdotal evidence. This finding itself needs further investigation. Furthermore, it might be true that a combination of both would be more pertinent to the beginning levels and as they progress into more advanced levels focus-on-form alone would fare just as well since the beginning level students might be more anxious to build their interlanguage system and would be more likely to be irritated by and feel uncertain and confusion from the lack of explicit and systematic grammar rules. While it could also be the other way around since focus-on-forms might make more sense after learners have gathered enough 'samples' from a long time of focus-on-form. This is definitely an issue that deserves some attention.

Second, the issue of collaborative learning: this study suggested that collaborative learning and group work is doable in online foreign language learning and might be more important than online students and instructors might have expected. However, there are a whole set of issues that need to be resolved for it to realize its full potential in online

foreign language learning, including how to best promote and support collaborative work online in terms of what media to use, what levels and types of instructor intervention are appropriate, and what activities fit best for collaborative work.

Third, the issue of learning community: this study explored using discussion board as an attempt to encourage the co-construction of learning community and succeeded in the social part but failed in the intellectual part. Then an answer is needed on how to build a learning community that not only promote social presence, but also facilitate cognitive presence. For instance, what kind of discussion topics are more effective, what kind and level of instructor presence is needed to facilitate the transition, and so on.

Fourth, the issues of strengthening learners' learning management skills: this study explored using self-reflection blog as a way to strengthening student's learning management skills and was greeted with mixed results. Further research is needed to explore ways of making reflection blog more effective in fulfilling this purpose (e.g., group + individual reflection blog; specific reflection topics), and to explore other possible ways of promoting learners' learning management skills (e.g., direct and constant instructor intervention, sharing of previous students' strategies to manage their learning experience in the course).

Conclusion

This study constructed a design framework for online foreign language learning based on literature, tested the feasibility of this framework through designing an online Chinese course, and investigated the utility of this framework in the context of several online foreign language courses together with the online Chinese course. It identified some factors that might affect learners' perception of their online language learning experience, and at the same time unraveled some issues and problems related to the

materialization of the principles of the design framework. Due to the exploratory nature of the study, although they are suggestive, its findings deserve further investigation. Nonetheless, this study suggests the importance of interaction in online foreign language learning in terms of fostering positive student perception of their online foreign language learning experience, and points out some possible directions for further research to better understand and construct effective online foreign language learning environments.

APPENDICES

Appendix A: Guidelines on Instructional Design from Existent Frameworks

Framework	Seven Principles of Good Practice in Undergraduate Education	Learner-Centered Psychological Principles (LCPs)	Quality on the Line (US)	Best Practices (US)	Quality Assurance Framework (UK)	Canadian Recommended e-Learning Guidelines (Canada)
Guidelines	<ul style="list-style-type: none"> • Encourage contacts between students and faculty • Develop reciprocity and cooperation among students • Use active learning techniques 	<ul style="list-style-type: none"> • Build on personal knowledge • Assist learners to develop, apply and assess their strategic learning skills • Help learners to develop metacognitive strategies (setting reasonable learning goals, selecting and monitoring appropriate learning strategies toward these goals) 	<ul style="list-style-type: none"> • Require students to engage in analysis, synthesis and evaluation • Learner-learner and learner-instructor interaction in various ways • Constructive and timely feedback on student assignment and questions • Student are instructed in proper methods of effective research • Provide course information that outlines the objectives, concepts and ideas, and clear statement of learning outcomes 	<ul style="list-style-type: none"> • Appropriate student-to-student and student-instructor interactions • Program requirements are communicated • Meet the needs of specific student populations • The availability of advisory and support services and technical help 	<ul style="list-style-type: none"> • Explicit and reasoned coherence between the strategies for teaching at a distance, the scope of the learning materials and the modes and criteria of assessment • Support and promote autonomous learning and enabling learners to take personal control over their own development • Full and clear information about he nature and expectations of the program of study 	<ul style="list-style-type: none"> • Respect individual needs • Interesting and motivating materials • Students are given opportunities to demonstrate current skills and knowledge

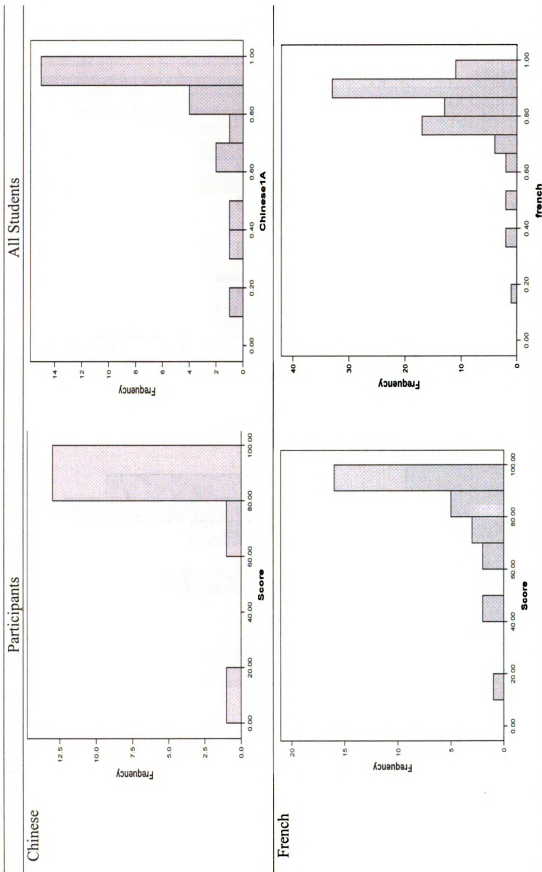
Appendix A (cont'd).

Framework	Seven Principles of Good Practice in Undergraduate Education	Learner-Centered Psychological Principles (LCPs)	Quality on the Line (US)	Best Practices (US)	Quality Assurance Framework (UK)	Canadian Recommended e-Learning Guidelines (Canada)
Guidelines	<ul style="list-style-type: none"> • Give prompt feedback • Emphasize time on-task • Communicate high expectations • Respect diverse talents and ways of learning • 	<ul style="list-style-type: none"> • Use tasks of optimal novelty and difficulty, relevancy to personal interests and provision of choice and control to stimulate intrinsic motivation to learn • Interactive and collaborative instructional contexts • Varying instructional methods and materials • Ongoing assessment (outcome assessment, performance assessment and self-assessment) 	<ul style="list-style-type: none"> • Students have sufficient access to resources • Faculty and students agree on expectations about times for assignment completion and faculty response • Intended learning outcomes are reviewed regularly to ensure clarity, utility and appropriateness 	<ul style="list-style-type: none"> • Distance students are demonstrably part to the academic community • 	<ul style="list-style-type: none"> • Take steps to determine what means of student representation are appropriate and realistic for students • Formative assessments should be used as part of the design of distance learning programs. 	<ul style="list-style-type: none"> • Provide a statement of acquired skills and knowledge • Appeal to diverse learning styles

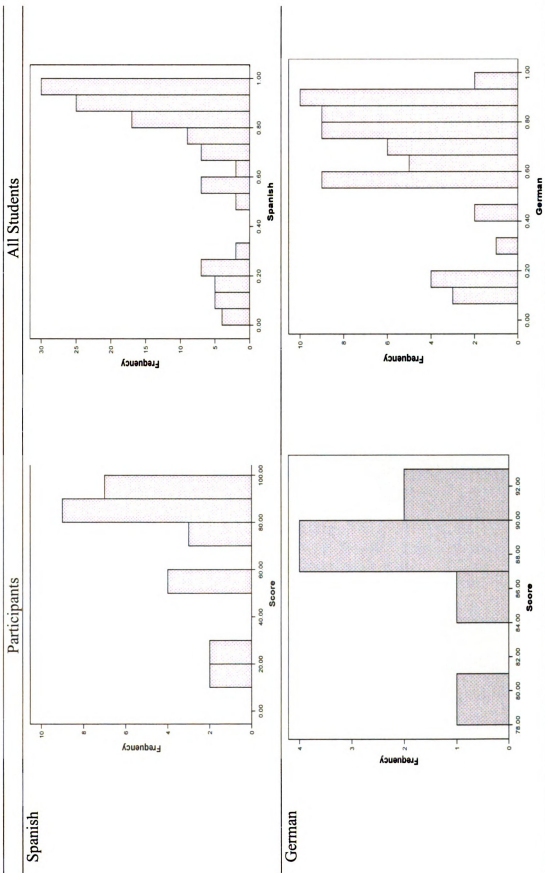
Appendix B: Percentage of Students in Different Language Groups

	potential student pool	participant
French	30%	37%
German	20%	10%
Spanish	41%	34%
Chinese	9%	19%

Appendix C: Sample Representativeness in Terms of Final Scores



Appendix C (cont'd).



Appendix D: Representativeness of the Participants and the Group Who Filled Out the
First Survey

		Participants (n = 79)		First survey respondents (n = 147)	
		Mean	SD	Mean	SD
Student variable	Achievement motivation	5.73	0.90	5.61	1.09
	Organization and self-regulation skills	5.37	0.91	5.34	1.02
	Positive attitudes to distance learning	3.52	1.38	3.34	1.36
	Confidence in ability to take distance course	5.89	1.23	5.77	1.24
Contextual variables	Social resources possible	4.11	1.75	4.14	1.79
	Background_online	0.34	0.48	0.41	0.49
	Background_language	0.71	0.46	0.64	0.48
	Grade	10.85	1.01	10.81	1.05
	Age	16.29	1.16	16.30	1.23
	Gender	0.72	0.45	0.69	0.47

Appendix E: Outcome and Predictor Variable Scales

Outcome Scales

Positive perception of the course:

I enjoyed this distance course very much.

I would be very happy to take another online foreign language course if opportunities arise.

I am very satisfied with this course.

I am satisfied with the amount of interaction with the instructor in this course.

I am satisfied with the learning materials in this course.

I am satisfied with the way the course is designed and organized.

I really enjoy this course and have great motivation to continue to take this online course next semester.

I enjoy learning this language and will continue to learn it even after I finish the course from virtual high school.

This course increases my confidence in my ability to learn this foreign language well.

This course increases my confidence in doing well in future online foreign language courses.

This course increases my abilities to use online technologies to be successful in future online courses.

After taking this course, I feel more positive about online courses.

After taking this course, I feel more positive about online foreign language learning.

I have improved the skills necessary for taking future online courses.

I have learned a lot about this foreign language in this course.

I have learned a lot about the foreign culture in this course.

I have acquired/improved some skills for online learning from taking this course.

I acquired some strategies on how to learn this foreign language well.

I acquired some strategies on how to do well in online foreign language courses.

This course improves my ability to collaborate with others.

Through this course, I have acquired some skills and strategies on learning foreign language.

I have acquired some skills and strategies in how to do well in online foreign language courses.

After taking this course, I feel myself better at taking initiatives and managing my own learning.

This course is quite effective in teaching the language.

This course is quite effective in teaching the culture.

Reduced Feeling of Isolation:

I am satisfied with the amount of interaction with other classmates in this course.

I felt quite isolated and lacking connection with other classmates throughout this learning experience. (Neg)

Course Variable Scales

Course Communication:

This course provides a lot of opportunities to interact with other classmates.
I interacted a lot with other classmates in this course.
I interacted a lot with the instructor in this course.
The feedback from the instructor was always timely.
The feedback from the instructor was always very detailed and full of information.
The assignment instructions were always very clear and easy to follow.
I know what I was expected to grasp and to achieve in this class.
I always know what I was supposed to do for class activities and assignment.
I was always given sufficient and timely technical support that I needed to do well in this course.
My mentor is very encouraging and helpful, constantly reminding me to keep on track.

Student Variable Scales

Organization and Self-Regulation:

Having control over my learning environment is important to me (i.e., choosing when to perform an activity).
I believe myself to be a very organized individual.
I tend to schedule my daily activities to allow enough time to accomplish them.
When I have a difficult exam coming up, I tend to start studying a week or two ahead of time.
I will often set short-term goals to help me reach a long-term goal.

Achievement Motivation:

I study hard for all of my classes because I enjoy acquiring new knowledge.
I do the work assigned in classes because I want to increase my understanding of the material.
I'm highly motivated to learn this language and the culture and the people who speak the language.

Attitude:

I cannot (or I predict I would not) learn online as well as I can (would) in the classroom with other learners and the instructor.

I would not enjoy (or I predict I would not enjoy) the online learning experiences as much as being in the classroom with other learners and the instructor.

I believe distance foreign language learning would be less effective than foreign language learning in classrooms with other learners and the instructor.

Distance foreign language learning requires much more time and efforts than foreign language learning in classrooms with other learners and the instructor.

Confidence:

I am confident that I have the ability to learn the language taught in this course well.

I am confident that I have the ability to use the technology required to be successful in this course.

I am confident that I will do well in this distance course.

Hour of Study Per Week:

How many hours did you study per week?

Emailing Instructor: (1—never; 4 – once a week or more)

How often do you email your instructor?

After-school activities: (composite scores of the two measures. 1 – 0-5 hours; 4 – more than 15 hours)

If you have a part-time job, how many hours a week do you work?

How many hours a week do you spend in activities other than a job outside school?

Contextual Variable Scales

Social Resources Available:

I have access to quite a few people who speak the language taught in this course.

It is easy for me to get learning resources about the language taught in this course.

Social Resources Used: (1—never; 4—frequently)

How often do you study together with other students in your school who are taking the same online language class?

How often do you practice this foreign language with your friends or family who speak or know this language?

Online Learning Background:

How many distance courses have you completed before?

Foreign Language Learning Background:

How many foreign language have your learned before?

Level: (0—1A; 1—higher levels)

Gender: (0—male; 1—female)

Grade: (1 – 9th grade; 2 – 10th grade; 3 – 11th grade; 4 – 12th grade)

Appendix F: Consent Form and Follow-Up Email Protocol

Consent Letter for Parents and Students

Dear Parent/Guardian,

I am a doctoral student in educational technology at Michigan State University, and I will begin a study about online foreign language learning this spring. The goal of this study is to identify factors that are important to the success of online foreign language courses and to help improve the design of online foreign language courses. Your child is being invited to take part in this study because he/she is taking an online foreign language course. Please read this form and ask any questions you may have before you agree to your child being in the study.

If you decide to let your child take part in this study, he/she will be asked to fill out one survey at the beginning of the semester on their prior foreign language experience, their prior online learning experience and their learning preferences. And at the end of the semester, he/she will be asked to fill out another survey on their perception of and evaluation of the online language course. Each survey will take about 5-10 minutes. I may also contact your child during the middle of the semester through email or phone on their concerns and problems with their online learning and their perceptions of their learning environments, and the phone interview will be audio taped.

There might be a slight risk to the students of experiencing some anxiety or embarrassment about revealing their views and opinions. These risks should be small since students will be given the option of not answering any questions they don't want to answer. Use of pseudonyms and the disguising of personal identifiers in research reports and presentations should offset any risk to students' reputation. This study is expected to improve our understanding of distance education and help develop better designed distance courses. Although no specific benefits can be guaranteed to any of the participants, it is possible that students and the teacher will benefit from the reflection about one's learning and/or teaching that the research procedures (particularly the surveys and interviews) might generate.

Your decision to allow your child to take part in the study is voluntary. Your child is free to choose not to take part in the study or to stop taking part at any time without any penalty. Your child is also free to refuse answer any questions they do not wish to answer. I will only collect information (surveys, interviews, test scores) from students who, along with their parents, have agreed to participate in the study. All the information collected during this research project will be kept strictly confidential and your child's privacy will be protected to the maximum extent by the law; for example your child's name will not be used in any reports about this project. I will protect your child's confidentiality by coding his/her information with a number so no one can trace the answers to his/her name. Only my colleagues at Michigan State University and I will see any student materials

collected for this study. On the form below, you can restrict the uses I make of the materials I collect from your child. A copy of the research results after this project is completed will be given to you at your request. If you have any questions about this research project, please contact Ms. Chun Lai by telephone at (517) 775-2784 or by e-mail at laichun1@msu.edu, or Dr. Yong Zhao by telephone at (517) 353-4325 or by e-mail at zhaoyo@msu.edu.

If you have any questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact – anonymously, if you wish – Peter Vasilenko, Ph.D., Chair of the University Committee on Research Involving Human Subjects (UCRIHS) by phone: (517) 355-2180, fax: (517) 432-4503, email address: ucrihs@msu.edu, or regular mail: 202 Olds Hall, East Lansing, MI 48824.

Thank you very much for considering allowing me to collect information about your child's learning experiences and for returning the enclosed forms.

Sincerely,

Chun Lai

Consent for Child's Participation

You are being asked to give permission to collect information from your child through the following activities:

1. Surveys about my child's previous distance and language learning experience and experience with this distance world language course.
2. Interviews with my child about his or her experiences in this course.
3. Access to samples of my child's work completed for class and access to my child's test scores.

Your signature below indicates your voluntary agreement for your child to participate in this study. Be assured that you can deny permission for me to collect information from your child at any time.

Child's Name _____

Parent/Guardian's Name _____

Student's Voluntary Consent Form

You are being asked to give permission to collect information from you through the following activities:

1. Surveys about my previous distance and language learning experience and experience with this distance world language course.
2. Interviews with me about his or her experiences in this course.
3. Access to samples of my work completed for class and access to my test scores.

Your signature below indicates your voluntary agreement to participate in this study. Be assured that you can deny permission for me to collect information from you at any time.

Name _____

Consent Letter for Teachers

Dear Teacher,

I am a doctoral student in educational technology at Michigan State University, and I will begin a study about distance foreign language learning this spring. The goal of this study is to identify factors that are important to the success of distance foreign language courses and to help improve the design of distance foreign language courses. To reach this goal, your input on your perception of distance foreign language courses is crucial.

If you decide to take part in this study, you will be asked to fill out one survey at the beginning of the semester on your prior foreign language teaching and distance teaching experience, and your pedagogical beliefs. During the semester, you will be interviewed on your feelings of the course and problems you encountered during teaching through email or phone, and the phone interview will be audio taped. And at the end of the semester, you will be interviewed on your perception on distance foreign language teaching and learning and asked to reflect on your teaching experience during this course. The survey will take about 10 minutes.

There might be a slight risk to you of experiencing some anxiety or embarrassment about revealing your views and opinions. These risks should be small since you will be given the option of not answering any questions you don't want to answer. Use of pseudonyms and the disguising of personal identifiers in research reports and presentations should offset any risk to your reputation. This study is expected to improve our understanding of distance education and help develop better designed distance courses. Although no specific benefits can be guaranteed to any of the participants, it is possible that you will benefit from the reflection about your teaching that the research procedures (particularly the surveys and interviews) might generate.

Your decision to take part in the study is voluntary. You are free to choose not to take part in the study or to stop taking part at any time without any penalty. You are also free to refuse answer any questions they do not wish to answer. All the information collected during this research project will be kept strictly confidential and your privacy will be protected to the maximum extent by the law; for example your name will not be used in any reports about this project. Reports of the research findings will not associate subjects with specific responses or findings. Only my colleagues at Michigan State University and I will see any materials collected for this study. On the form below, you can restrict the uses I make of the materials I collect from you. A copy of the research results after this project is completed will be given to you at your request. If you have any questions about this research project, please contact Chun Lai by telephone at (517) 775-2784 or by e-

mail at laichun1@msu.edu, or Dr. Yong Zhao by telephone at (517) 353-4325 or by e-mail at zhaoyo@msu.edu.

If you have any questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact – anonymously, if you wish – Peter Vasilenko, Ph.D., Chair of the University Committee on Research Involving Human Subjects (UCRIHS) by phone: (517) 355-2180, fax: (517) 432-4503, email address: ucrihs@msu.edu, or regular mail: 202 Olds Hall, East Lansing, MI 48824.

Thank you very much for considering allowing me to collect information about your teaching experiences and for returning the enclosed forms.

Sincerely,

Chun Lai

Consent for Participation

You are being asked to give permission to collect information from you through the following activities:

1. Surveys about my previous distance and language teaching experience and pedagogical belief.
2. Interviews with me about my experiences teaching this course.

Your signature below indicates your voluntary agreement to participate in this study. Be assured that you can deny permission for me to collect information from you at any time.

Name _____

Follow-Up Email Protocol

Dear XX,

Thank you very much for filling out the survey. I have a few further questions concerning your online learning experience in this foreign language course. I would very much appreciate it if you can help me answer those questions. The interview would take around 5-10 minutes. The time and format is flexible and based on your preference. I can interview you through phone, email or IM, depending on your preference. If you prefer phone interview, please give me a time and phone number that I can reach you. If you prefer email, I'll send the questions to you. If you prefer IM, please give me your IM screen name.

Please let me know whether you will be able to help me with those questions and what format you would prefer. Thank you very much for helping me gain more understanding into your learning experience in this course. Hope to hear from you soon.

Follow-Up Email Questions

1. How are you doing with this online course so far? Are you satisfied with your learning so far? Why or why not?
2. Have you taken any other online courses before? How does this course differ from the other courses?
3. What do you think is the strength of this course?
4. What do you think the course fail to do a good job in?
5. What do you think about the opportunities to interact with other classmates in the course? Do you think it's important for online language learning? Why or why not?

Does this online course provide any opportunity to interact with other classmates?
Did you interact a lot with your other classmates? Why or why not?

6. What do you think about the discussion board in your course BlackBoard? Have you used them often? Why or why not?
7. Is there any frustration you have encountered during this course?
8. What do you think are important to online foreign language learning?
9. How do you think you can be best supported in your online foreign language learning experience?
10. Please describe a good online foreign language course in your mind.

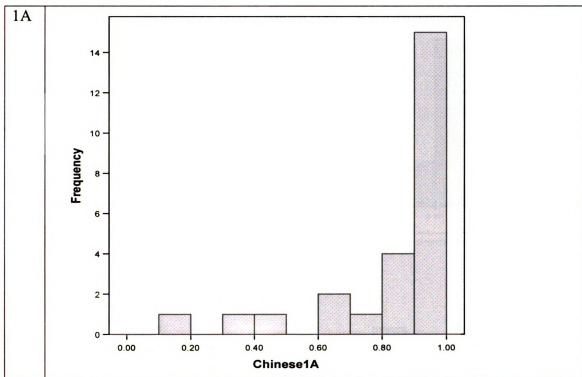
Appendix G: Final Grades of Students in Different Language Classes

The final grades of students in different language levels were summarized as follows:

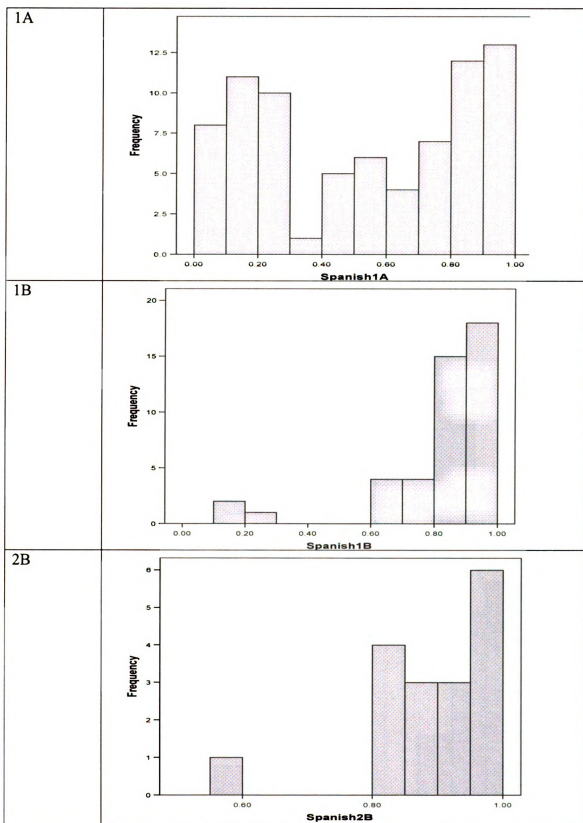
Language	1A	1B		2B		
	Mean	SD	Mean	SD	Mean	SD
Chinese	72	33				
French	66	22	86	9	86	16
German	73	27	62	23	78	23
Spanish	57	33	84	18	88	10

The distributions of the majority of the courses were uni-modal, with the exception of Spanish 1A, and were either approaching normal or negatively skewed. The table above listed the average scores and standard deviations for those courses. Following histograms represent the distribution of the score in different language classes:

Chinese:

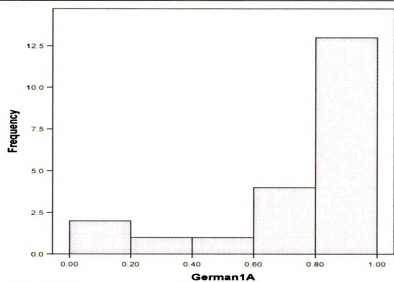


Spanish:

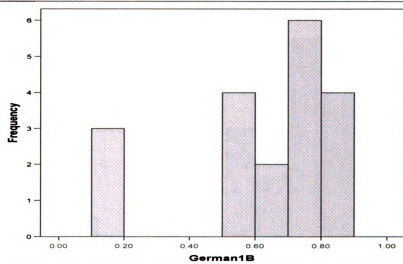


German:

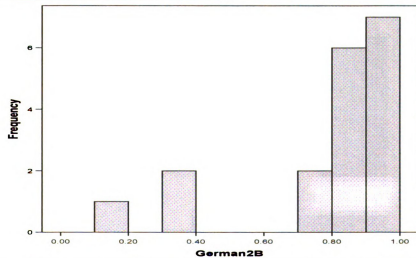
1A



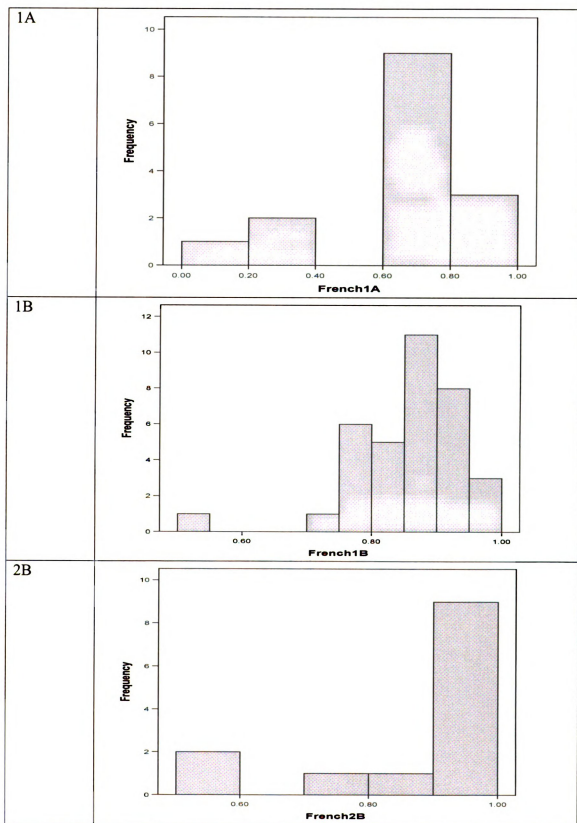
1B



2B



French:



Appendix H: Student Rating of Course Communication Components in Different Language Groups

Course Variable	Sub-components	Chinese (n = 15)		French (n = 29)		Spanish (n = 27)		German (n = 8)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Course Communication	Interaction_classmates (opportunity)	5.60	1.18	2.72	1.69	4.00	2.17	4.38	1.69
	Interaction_classmates	5.20	1.66	2.31	1.87	3.81	2.08	3.88	1.46
	Interaction_instructor	5.73	1.10	4.59	1.92	4.81	1.73	5.00	1.85
	Timely and informative feedback	5.00	1.41	5.48	1.32	5.69	1.45	5.38	1.19
	Clarity of instruction	5.69	1.07	5.02	1.33	5.36	1.38	5.63	1.16
	Technical and mentor support	5.20	1.32	5.31	1.27	5.52	1.73	5.63	1.22
Overall		5.40	0.85	4.63	1.07	5.11	1.37	5.21	1.09

Appendix I: Detailed Comparison of Positive Course Perception in Different Language Groups

	Chinese (n = 15)		French (n = 29)		Spanish (n = 27)		German (n = 8)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Positive attitude change	5.72	1.46	5.49	1.34	5.13	1.73	5.98	0.57
Improvement of general skills	5.96	1.11	5.38	1.25	5.21	1.57	5.81	0.66
Learning of the language and culture	5.73	1.46	5.22	1.20	4.96	1.69	5.69	0.75
Satisfaction with the course	5.68	0.96	4.86	1.09	5.04	1.58	5.07	1.19
Likelihood of future online learning and learning the language	5.67	1.41	5.46	1.57	4.62	2.04	5.83	0.91

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